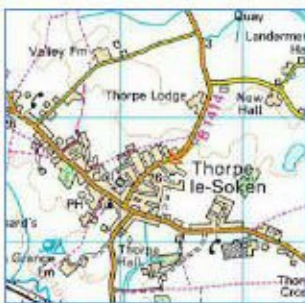


**PHASE 1 – DESK STUDY AND PRELIMINARY RISK ASSESSMENT
FOR A PROPOSED RESIDENTIAL DEVELOPMENT
AT
LANDERMERE ROAD, THORPE-LE-SOKEN, CO16 0LW**

Prepared For

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Report Reference Number: 1696,DS/DB,JD/28-06-16/V2
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REVISION RECORD

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AMENDMENT RECORD

Revision	Date	Amendments
V2	28.06.16	Updated client name

EXECUTIVE SUMMARY

Project Details	<p>Geosphere Environmental Ltd was commissioned by M Scott Properties Ltd, to undertake a Phase 1 Preliminary Risk Assessment at Landermere Road, Thorpe-le-Soken, CO16 0LW.</p> <p>It was proposed that the site is to be developed into a number of residential dwellings.</p>
Site Location / Description	<p>The site was located at Landermere Road situated approximately 8 km to the north of the town centre of Clacton-on-Sea, and may be located by National Grid Reference, (NGR) 618610 222570.</p> <p>At the time this report was prepared, the site comprised of arable land with evidence of an exercise/assault course in the southern section, and hardstanding at the north. The surrounding areas consists of arable fields and residential premises, most notably to the west and south of the site.</p>
Geology	<p>The geological records indicated the site to be underlain by superficial deposits of Cover Sand.</p> <p>The superficial deposits were underlain by bedrock geology of the Thames Group.</p> <p>Although not indicated as present upon the site, the possibility that Made Ground was present could not be discounted.</p>
Hydrogeology	<p>The hydrogeological records indicated that the site was located upon Unproductive Strata. The site was not located within a Source Protection Zone.</p>
Hydrology	<p>The nearest surface watercourse was an unnamed tertiary river which runs through the north eastern corner of the site. A drainage pipe denoted on the appended topographical survey may flow into this tertiary river/ditch. A primary river watercourse was located approximate 1km to the north of the site. There was a pond located at the west of the site.</p>
History	<p>The earliest available historical map, dated 1872, indicated the site to be arable fields. The site has undergone very little change since the earliest available map with most significant change to the site being the construction of two rectangular structures to the north of the site which were built from 1938, but demolished by 1972. This area has since been used for storage or materials, (interpreted to be predominantly straw/manure but may have included soils), and car parking.</p>
Conceptual Model	<p>Based upon the findings of the preliminary risk assessment and walkover, it has been assessed that the former uses of the site may pose localised elevated risks to human health and/or other Controlled Waters receptors.</p>
Recommendations	<p>It is recommended that the following works are undertaken: geotechnical ground investigation, including assessment of the presence/extent of Made Ground in the north of the site and fly-tipped materials on site, (including asbestos testing where applicable). Ground gas/groundwater quality monitoring may be necessary if significant Made Ground is encountered.</p>

This Executive Summary only provides a summary of the site data and its assessment. It does not provide a definitive engineering analysis and is for guidance only. It is recommended that the reader reviews the reporting its entirety and any material referenced therein.

CONTENTS

Page No.

DOCUMENT ISSUED RECORD	1
REVISION RECORD	1
AMENDMENT RECORD	1
EXECUTIVE SUMMARY	2
1. INTRODUCTION	5
2. SITE SETTINGS	6
2.1 Site Description	6
2.2 Site Walkover	7
2.3 Geological Setting	7
2.4 Hydrogeological Setting	8
2.5 Hydrological Setting	8
2.6 Radon	9
3. ENVIRONMENTAL SEARCHES	10
3.1 Environmental Searches Summary	10
3.2 Nitrate Vulnerable Zone	11
4. SITE HISTORY	12
4.1 Historical Maps	12
4.2 Additional Available Information	13
4.3 History of the Site – Summary	13
5. CONCEPTUAL MODEL	15
5.1 Hazard Identification: On-Site	15
5.2 Hazard Identification: Off-Site	15
5.3 Hazard Assessment	16
6. CONCLUSIONS AND RECOMMENDATIONS	18

CONTENTS

Page No.

APPENDICES

APPENDIX 1 - ACRONYMS AND ABBREVIATIONS	
APPENDIX 2 – REPORT LIMITATIONS AND CONDITIONS	
APPENDIX 3 – REFERENCES	
APPENDIX 4 – ENVIROCHECK DATA SEARCH REPORT	
APPENDIX 5 – ENVIROCHECK HISTORICAL MAPS	
APPENDIX 6 – DRAWINGS	
APPENDIX 7 – PHOTOGRAPHS	

TABLES

Table 1 – Geohazards and Ground Workings	8
Table 2 - Environmental Searches Summary	10
Table 3 - Historical Summary	12
Table 4 - Preliminary Conceptual Model	16

1. INTRODUCTION

Geosphere Environmental Limited was commissioned by M Scott Properties Ltd, to undertake a Phase 1 Desk Study Preliminary Risk Assessment for a proposed residential development at Landermere Road, Thorpe-le-Soken, Essex, CO16 0LW.

It was understood that the site is to be developed into number of residential dwellings, however, at the time of writing this report, no proposed development layout has been provided.

The primary objectives of the preliminary risk assessment are to:

- Provide an assessment of environmental sensitivity at the site and the surrounding area in relation to any suspected or known contamination which may significantly affect the site and the proposed development;
- Indicate whether further works are required, and the nature of the works, to enable a more complete assessment of the site.

These are to be achieved by:

- Undertaking a walkover of the site;
- Researching and assessing the available information regarding the current site status, recorded geology, hydrogeology and hydrology of the site and surrounding area, and details of the history of the site.

2. SITE SETTINGS

2.1 Site Description

The subject site was situated in Thorpe-le-Soken village approximately 8 km to the north of the town of Clacton-on-Sea, and may be located by National Grid Reference, (NGR) 618610 222570.

A Site Location Plan, is shown in Figure 1 below and Figure 2 indicates the site boundary. A Topographical Survey plan, Drawing reference 401/011/01 as provided by the client, is included within Appendix 6.



Figure 1 – Site Location Plan

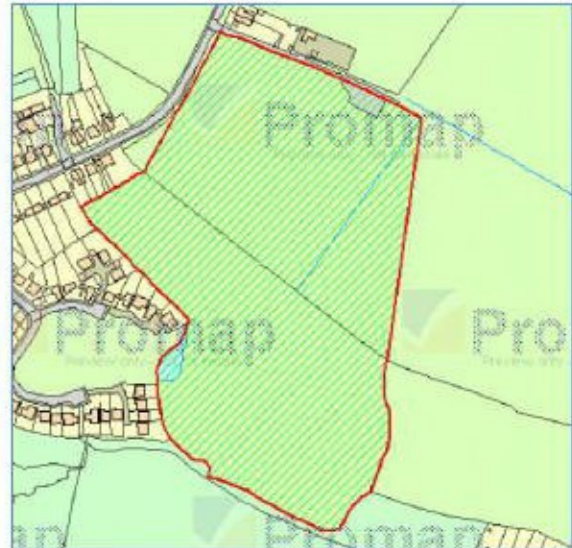


Figure 2 – Site Plan

<https://www.google.co.uk/maps/place/Landermere+Rd>

The subject site was irregular in shape approximately 7.52 ha in area. The topography of the site was relatively flat, with an approximate elevation of 25 to 26m AOD.

The site comprised of three fields divided, as indicated by Figure 2, and understood to be used for agricultural purposes. The northern fields were ploughed fields and the southern, grass fields. A hedge was present cutting across the approximate middle of the site, orientated north west to south east.

At the north east of the site was a hard-standing area, understood to be used for car parking; it was surrounded, in part, by a small soil bund and access via a track from the B1414, Landermere Road.

The southern field included items such as groupings of tyres, straw bales, plastic pipes or small soil mounds or excavations understood to have been previously used for an assault course. A manhole /access chamber cover was noted within the approximate centre of the site. Based upon the provided topographical survey plan this is associated with a drainage pipe, (not inspected), oriented approximately north east to south west transecting the site, and discharging to a ditch at the eastern boundary.

Overhead electricity supply cables transect the southern section of the site. On parts of the western boundaries were small piles or quantities of flytipped materials, likely to be waste domestic materials including timber, plastic, furniture.

The surrounding area comprised of fields to the north and east of the site. To the north of the aforementioned track, (accessing the hardstanding area), were predominately residential buildings and a hard standing area. possibly used for parking of buses.

At the western boundary is a pond surrounded by trees and other vegetation. Other sections of the western and north western site boundaries comprised of residential properties.

To the south east of the site comprises the village of Thorpe-le-Soken, with numerous residential properties. Directly south of the site was a field of scrub or unused land with a caravan park further south. The site boundary at the north east, running north east to south west, comprised of various hedges and trees. Scattered scrub and trees were present along the southern border of the site and within parts of the site boundaries.

A Site Plan, Drawing ref. 1696,EC,AR,DS,SK/005 Rev 1 is included in Appendix 6.

2.2 Site Walkover

A walkover survey of the site was carried out on 17 March 2016. The site walkover was conducted in general accordance with CLR 2, (ref. R.11). Photographs taken during the site walkover are included in Appendix 7.

At the time of the walkover the site comprised of open fields with a number of hedges, trees, bushes, pond and hardstanding area as described above.

Limited visual evidence of contamination was observed during the site walkover, however it was worth noting that to the west of the site, possible fly-tipped waste was present which included general waste, household waste and garden waste, having the potential to be host to asbestos-containing materials.

The risk of contaminants can only be assessed once the available desk study information has been reviewed, and potential sources of contamination fully identified. This will be detailed further within the preliminary risk assessment.

2.3 Geological Setting

Details of the geology underlying the site have been obtained from the British Geological Survey, (BGS), map, digital mapping at a scale of 1:50,000, which is provided within the Envirocheck Report.

The geological map indicates the site to be underlain by superficial deposits of Cover Sand, described as sand and silt, commonly wind-blown, (aeolian).

The superficial deposits are indicated to be underlain by the Thames Group described as silty clay/mudstone, sandy silts and sandy clayey silts of marine origin.

Table 1 below, summarises the factors that may have a potential impact upon the engineering of the proposed development.

Table 1 – Geohazards and Ground Workings

Potential Hazard	Recorded Risk [m] / [Direction]			Comments
	On-site	Within 250m	Within 500m	
Shrink Swell Clay	Moderate	-	-	
Collapsible Deposits	Very Low	-	-	
Compressible Deposits	No Hazard	-	-	
Ground Dissolution	No Hazard	-	-	
Landslides	Very Low	-	-	
Running Sands	No Hazard	-	-	
Non Coal Mining Areas	No Hazard	-	-	

2.4 Hydrogeological Setting

The hydrogeological data provided within the Envirocheck Report indicate the site was located over bedrock strata designated as Unproductive Strata. The Environment Agency, (ref. **R.22**), defines Unproductive Strata as rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

The groundwater vulnerability map and Envirocheck Report indicates the soil is not classified for soil leachability, due to the underlying Unproductive strata.

The site was not located within or nearby a groundwater source protection zone, (SPZ).

There were no groundwater abstraction wells within 500m of the site. The closest active abstraction record well was situated approximately 564m to the south east of the site, and was used for general farming and domestic use. There are records of a surface abstraction point on site but the records indicate that this is no longer active.

2.5 Hydrological Setting

The nearest surface watercourse was an unnamed tertiary river which runs through the north eastern corner of the site. Based upon the appended Envirocheck Drawing reference "EA/NRW Detailed River Network Map – Slice A", this is connected to other tertiary rivers and may be in continuity with a primary river watercourse, interpreted to be Hamford Water, located approximate 1km to the north of the site. There was no available river quality classification data for the nearest watercourse.

There was a pond located on the western side of site as described above.

The site was not located within a river or tidal flood area and was not likely to be subject to flood warnings.

The site was not located within a river and tidal floodplain area and was not likely to be subject to flood warnings. However, the site was located 750m south of a Zone 3 river floodplain, which benefits from flood defence.

Zone 3 estimates the annual probability of flooding as one in one hundred, (1%), or greater from rivers and a one in two hundred, (0.5%), or greater from the sea.

2.6 Radon

The HPA 'Indicative Atlas of Radon' 2007, (ref. **R.8**), indicates the site to lie within an area where there is a probability of <1% of present or future homes being above the action level of 200Bq/m³. As such, the site is not classified as a Radon Affected Area. This is confirmed by the Building Research Establishment, Report 211, 2007, (ref. **R.9**).

3. ENVIRONMENTAL SEARCHES

3.1 Environmental Searches Summary

The environmental searches are detailed fully within the Envirocheck Report presented within Appendix 4. Table 2 shown below, summarises the most relevant findings:

Table 2 - Environmental Searches Summary				
Activity	Distance From The Site			Comments [m]/[direction]
	On-site	Within 250m	250m to 500m	
1. Incidents and Registers				
COMAH and NIHHS sites	-	-	-	
Environment Agency Recorded Pollution Incidents	-	-	-	642m/SW – Oils – Diesel. Water Impact: Category 2 – Significant incident. Air and Land Impact: Category 3 – Minor Incident.
IPPC	-	-	-	
Discharge Consents	-	-	7	329m/N – Sewage Discharge 394m/SW – Surface Water 437m/N – Sewage Discharge 437m/N – Sewage Discharge 437m/N – Sewage Discharge 437m/N – Sewage Discharge 437m/N – Sewage Discharge
Sites Determined as Contaminated Land under Part IIA EPA1990	-	-	-	
2. Landfills and Waste Treatment / Disposal Sites				
Registered Landfill Site	-	-	-	770m/S - boundary quality: moderate
Historical Landfills	-	-	-	755m/S
BGS - Landfill	-	-	-	
Local Authority Recorded Landfill	-	-	-	754m/S - boundary quality: Good
3. Contemporary Trade Entries of Concern				
Industrial Sites	-	1	3	17m/N – record for “concrete products” at Garden Supply Nursery; status: inactive 334/SW – Commercial Cleaning Services 348/W – Damp & Dry Rot Control 498/SW – Car Component Manufacturers
Fuel Sites	-	-	-	688/W
Electrical Substations	-	-	-	
Other	-	-	-	
4. Designed Environmentally Sensitive Sites				

Table 2 - Environmental Searches Summary				
Activity	Distance From The Site			Comments [m]/[direction]
	On-site	Within 250m	250m to 500m	
Sites of Special Scientific Interest (SSSI)	-	-	-	Approx. 1.5km to the North East
National Nature Reserves (NNR)	-	-	-	Approx. 1.5km to the North East
Local Nature Reserves (LNR)	-	-	-	
Areas of Outstanding Natural Beauty and Scenic Areas	-	-	-	Approx.1.5km to the North-East
Green Belt Areas	-	-	-	
Special Areas of Conservation	-	-	-	
Special Protection Areas	-	-	-	
Environmentally Sensitive Areas (DEFRA)	-	-	-	535/N
Ramsar Sites	-	-	-	Approx. 1.5km to the North-East

3.2 Nitrate Vulnerable Zone

The site was located within an area designated as a nitrate vulnerable zone.

The Nitrates Directive, (ref. **R.12**), defines a nitrate vulnerable zone as:

- Surface freshwater which contains or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l;
- Groundwater which contains or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l;

4. Site History

4.1 Historical Maps

A review of the history of the site has been conducted based on readily available large scale, (1:10,056 / 1:2500), historical maps provided by Envirocheck. The most significant changes are detailed in the table below, and the historical ordnance survey maps are included in Appendix 5.

Table 3 - Historical Summary		
Date	Potentially Contaminative Land Uses / Significant Changes	
	On-site [Direction]	Off-site [Distance/Direction]
1874	<ul style="list-style-type: none"> Site shown as open land and undeveloped comprising sections of three fields and pond in the southern section (western boundary). 	<ul style="list-style-type: none"> Open land and undeveloped. Residential properties directly adjacent to the North and West of the site.
1880	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1898	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1897	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1923	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> Open land developed into some residential properties to the west. Allotment gardens and orchard to the South
1925	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1938	<ul style="list-style-type: none"> 1 building or structure (unlabelled) with possible surrounding hardstanding) on the northern border of site (at location of current hardstanding/car parking area). 	<ul style="list-style-type: none"> No significant changes
1958	<ul style="list-style-type: none"> Additional building structure on the northern boundary of site. 	<ul style="list-style-type: none"> Development of residential properties to the South-East and more properties to the west.
1967	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1972	<ul style="list-style-type: none"> Building/structures on the northern boundary no longer depicted Drain in place cutting diagonally across north-east corner of site. 	<ul style="list-style-type: none"> More residential development to the east. Orchard redeveloped back into open land.
1979	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1986	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> Residential development directly to the east
1989	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> Expansion of residential properties to the east
1994	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
1996	<ul style="list-style-type: none"> No significant changes 	<ul style="list-style-type: none"> No significant changes
2006	<ul style="list-style-type: none"> Hardstanding car park north east of site 	<ul style="list-style-type: none"> Bus yard to the north adjacent to site

Table 3 - Historical Summary		
Date	Potentially Contaminative Land Uses / Significant Changes	
	On-site [Direction]	Off-site [Distance/Direction]
2016	○ No significant changes	○ No significant changes

Notes:
It should be noted that the dates of the maps do not always correspond with the time of the surveys.

Excerpts of the historical maps are provided in Figure 3 below:

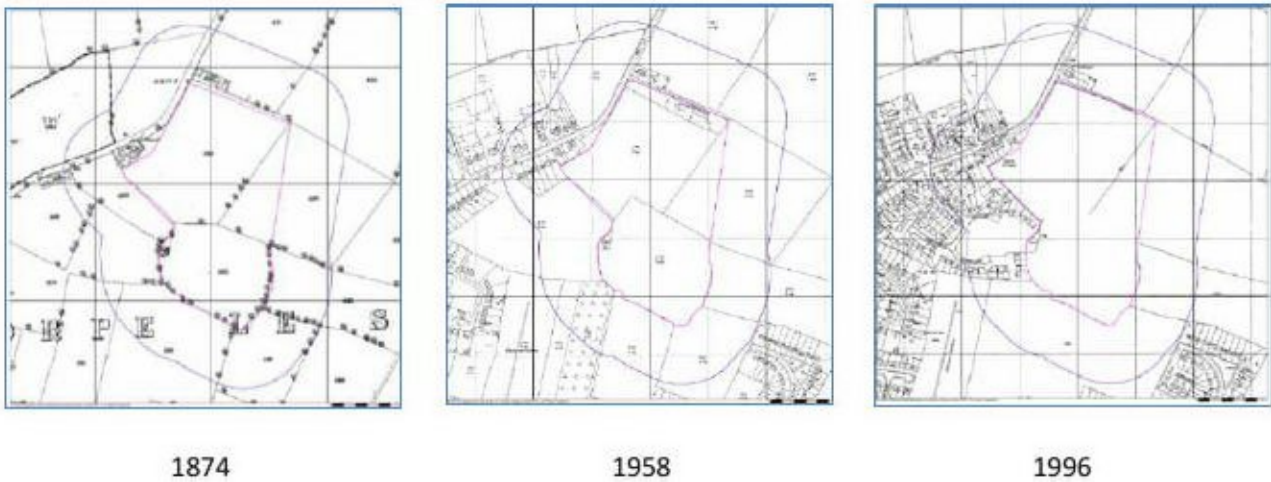


Figure 3 – Extracts from Historical Ordnance Survey Maps between 1874 and 1996

4.2 Additional Available Information

Readily available historical aerial imagery of the site indicates the following, relating specifically to the hardstanding/former buildings at the north east of the site:

- Various stockpiles of materials are on site along with a vehicle, possibly a lorry. Some of the materials may be straw/manure;
- Between 2005 and 2012, half to three-quarters of the area was covered by a stockpiled material, possibly straw/manure, possibly soil materials;
- By 2016 the majority of the subject area had been cleared of these materials.

4.3 History of the Site – Summary

The review of the historical maps and provided information about changes to the site and its surroundings between 1873 and 2016, along with interpretation, includes the following assessments.

Based upon the historical information it has been concluded that the site has undergone very little change since the earliest map available, comprising parts of three open fields, primarily used for agriculture purposes. The most significant change to the site was the construction of two rectangular structures to the

north of the site, with possible surrounding hardstanding areas, which were built from 1938 but removed or demolished by 1972. The hardstanding area remains and has been used for storage of materials, possibly straw/manure or soils, and is understood to be used most recently for car parking.

More recently it is interpreted that the southern section of the site has been utilised as an exercise/assault course, incorporating import and construction of obstacles such as tyre groups, soil mounds, shallow excavations.

The surrounding area has become increasingly developed from 1938 to 2016. The area predominately comprised of open fields assumed to be for agricultural uses. Residential buildings started to become prominent in 1928, with the number of residential dwellings increasing throughout the maps to present day.

5. CONCEPTUAL MODEL

The risk assessment methodology is based on current guidelines, (refs. **R.13**, **R.14** and **R.15**), and legislation (refs. **R.17** and **R.18**).

The current guidance requires that a conceptual model be formulated, based upon the findings of the research. The conceptual model is limited at this stage to the identification and assessment of potential 'hazards', identified or suspected from the results of the research; the potential 'receptors' that may be affected and the anticipated 'pathways' to those receptors. The findings are summarised in the following subsections.

The guidance proposes a four-stage approach for the assessment of contamination and the associated risks. The four stages are listed below:

- Hazard Identification;
- Hazard Assessment;
- Risk Estimation;
- Risk Evaluation.

In accordance with the guidance, (ref. **R.14**), only the first two stages are addressed in a preliminary risk assessment; should hazards exist which are a potential risk then more intrusive investigation works are recommended.

5.1 Hazard Identification: On-Site

The desk based research and historical review identified the following potential hazards or hazard sources on the site:

- The possibility of Made Ground associated with former historic structures at the north of the site;
- Possible leaching or run-off of materials or soils stored on the hardstanding;
- Made or disturbed Ground associated with the assault course area;
- Small amounts of fly-tipped/waste materials on western site border such as garden furniture and general domestic waste.

The first and fourth sources have the potential to included PACMs, among other potential hazards.

5.2 Hazard Identification: Off-Site

The desk based research and historical review did not identify any significant or potential hazards off-site that may impact upon the site.

5.3 Hazard Assessment

The preliminary risk assessment has identified a few potential sources of contamination which may pose risk to human health and the Controlled Waters. Potential pollutant linkages that require further consideration are presented in the table shown below:

Table 4 - Preliminary Conceptual Model		
Source	Pathway	Receptor
<ul style="list-style-type: none"> ○ On-site: • Made Ground • Fly-tipped waste materials 	<ul style="list-style-type: none"> ○ Ingestion of contaminated soil by direct contact ○ Ingestion of contaminants through vegetables ○ Entry of contaminants by skin or eye contact with contaminated soils or dust ○ Inhalation of contaminated dust ○ Inhalation or migration of toxic/explosives gases/vapours 	Humans <ul style="list-style-type: none"> ○ Site occupants ○ Site users ○ Construction workers ○ Maintenance workers ○ Neighbouring site users
	<ul style="list-style-type: none"> ○ Direct uptake and accumulation of contaminants ○ Accumulation or migration of toxic gases 	Flora and Fauna <ul style="list-style-type: none"> ○ Landscaped areas ○ Sensitive areas
<ul style="list-style-type: none"> ○ Off-site: • None Identified 	<ul style="list-style-type: none"> ○ Migration ○ Surface run-off 	Water Environment <ul style="list-style-type: none"> ○ Groundwater ○ Surface Waters ○ Wetlands ○ Estuaries
	<ul style="list-style-type: none"> ○ Direct contact of contaminants with building materials 	Building Materials and Services <ul style="list-style-type: none"> ○ Concrete ○ Plastic pipes and services

Note: Sources, pathways and receptors greyed out above are no longer considered to be acting as a contaminant source/active/at risk respectively.

Based upon the findings of the data search as well as the site walkover, it has been assessed that the former uses of the site are not likely to result in potential contamination which could pose risks to human health/Controlled Waters.

However, it is likely that present day waste piles on the west border and former structures/storage on the northern boundary of the site between 1938 and 2012, may have impacted the site and could be a source of contamination posing risk to both human health and controlled waters. The waste materials and any Made Ground may include hazardous substances such as asbestos.

In mitigation, these potential sources appear localised and the likelihood of there being significant contamination associated with these is considered to be low.

The soil disturbance associated with the objects of the assault course are unlikely to have included significant soil import to the site as a result are interpreted to be unlikely to pose a significant Made Ground source. However these should be assessed in more detail to confirm this assessment.

In general the risk to the above receptors is low to medium.

6. CONCLUSIONS AND RECOMMENDATIONS

Geosphere Environmental Ltd, was commissioned by the Client, M Scott Properties Ltd, to undertake a Phase 1 Desk Study and Preliminary Risk Assessment, for a proposed residential development at Landermere Road, Thorpe-le-Soken, CO16 0LW.

Based upon the findings of the preliminary risk assessment and site walkover, a small number of potential contaminant sources and pathways to potential receptors have been identified which include two former structures on site and fly-tipped waste material.

Should redevelopment of the site take place, it would be necessary to undertake a geotechnical investigation of the site to enable a suitable foundation solution to be designed for the proposed structures. Within this, cohesive ground conditions and the presence of mature trees should be taken into consideration. Any excavation of foundations should be carried out in accordance with the NHBC standards, (ref. **R.10**).

It would be applicable to reduce long term liability to (a) undertake detailed inspection, (followed by asbestos or other chemical analysis, if applicable), on the flytipped waste material in the western area, and (b) make an assessment of the ground conditions underneath and around the concrete hardstanding at the north of the site. This could be undertaken in conjunction with the geotechnical assessment to minimise mobilisation and supervisory costs.

A Discovery Strategy/Watching Brief should be applied to the proposed development during any soil disturbance/groundworks. It cannot be discounted that other areas disturbed or Made Ground, such as the areas around the assault course components, include imported or potentially hazardous materials.

If significant thickness or deposits of Made Ground are encountered it will be necessary to undertake an assessment of the soil-gas regime and groundwater conditions in and surrounding such material.

Any ground investigation should be designed in general accordance with CLR 4, (refs. **R.16** and **R.19**), undertaken in compliance with BS10175, (ref. **R.19**), and BS5930, (ref. **R.20**).

Due to the potential contamination, appropriate PPE is advised to be worn during any groundworks.

It is recommended that this report be submitted to the Local Authority as part of the planning submission for the site.

APPENDICES



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APPENDIX 1 - ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Definition
ACM	Asbestos containing material
ADE	Average daily exposure
ASPT	Average score per Taxon
BAP	Biodiversity Action Plan
BOD	Biochemical oxygen demand
BH	Borehole
BRE	Building Research Establishment
BS	British Standard
BTEX	Benzene, Toluene, Ethyl benzene and Xylenes
CIRIA	Construction Industry Research and Information Association
CLEA	Contaminated Land Exposure Assessment
CLR	Contaminated Land Research reports
DEFRA	Department of the Environment, Food and Rural Affairs (formerly the DoE and DETR)
DETR	Department of the Environment, Transport and the Regions (formerly the DoE and now Defra)
DO	Dissolved oxygen
DoE	Department of the Environment (then DETR and later Defra)
DQRA	Detailed quantitative risk assessment (Tier 2)
EA	Environment Agency
EPH	Extractable petroleum hydrocarbons
EQI	Environmental Quality Index
EQS	Environmental Quality Standards
FRA	Flood Risk Assessment
GQRA	Generic quantitative risk assessment (Tier 1)
IPC	Integrated Pollution Control
IPPC	Integrated Pollution Prevention Control
m aOD	Metres above ordnance datum
mbgl	Metres below ground level
NGR	National grid reference
NHBC	National House Building Council
NRA	National Rivers Authority (now the Environment Agency)
PACM	Potentially asbestos containing material

APPENDIX 2 – REPORT LIMITATIONS AND CONDITIONS

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

The comments given in this report, and the opinions expressed herein, are based upon the readily available information collated for the report and an assessment based upon the current UK guidance, primarily the Contaminated Land Research (CLR) Reports, and most importantly CLR Report 3. (ref. **R.1**).

This report has been prepared for the sole use of the Client for the purposes described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.

This report is prepared and written for the use stated herein; it should not be used for any other purposes without reference to Geosphere Environmental Limited. The report has been prepared in relation to the proposed end-use should another end-use be intended a further re-assessment may be required. It is likely that over time practises will improve and the relevant guidance and legislation be amended or superseded, which may necessitate a re-assessment of the site.

The report is limited to those aspects of land contamination specifically reported on and is necessarily qualified accordingly, no liability shall be accepted for other aspects which may be the result of gradual or sudden pollution incidents, past or present unrecorded land uses both on- and off-site and the potential for associated contaminant migration. The opinions expressed cannot be absolute due to the limitations of time and resources imposed by the agreed brief.

The accuracy of any map extracts cannot be guaranteed. It is possible that different conditions existed on site, between and subsequent to the various map surveys appended.

Whilst the report may express an opinion on possible configurations of strata between or beyond exploratory holes discussed or on the possible presence of features based on visual, verbal or published evidence, this is for guidance only and no liability can be accepted for its accuracy.

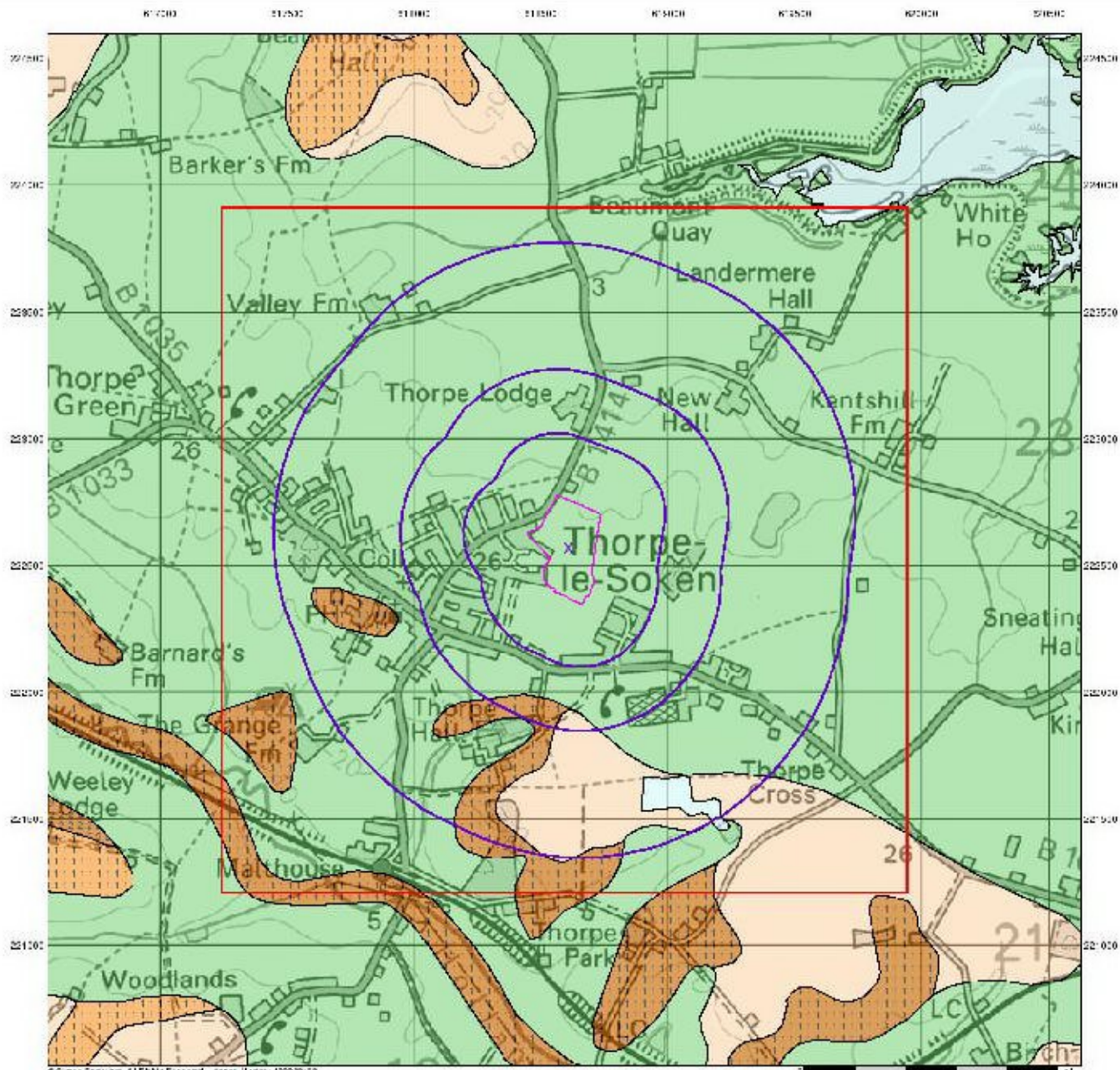
The conceptual model is based on the information available at the time of conducting this assessment and is an interpretative assessment of the conditions at the site. It should be noted that the redevelopment and/or further investigation of the site may reveal additional information and therefore alter the conceptual model and the conclusion of this report.

APPENDIX 3 – REFERENCES

- R.1. CLR 3, 'Documentary research on industrial sites', Report by RPS Consultants Ltd, DoE 1994.
- R.2. CLR 8, 'Potential contaminants for the assessment of contaminated land'. Defra/EA, March 2002. (Withdrawn).
- R.3. CIRIA SP69, 'The engineering implications of rising groundwater levels in London'.
- R.4. CIRIA SP092 'Rising groundwater levels in Birmingham and the engineering implications'.
- R.5. Environment Agency Biology, GQA method, available on the website www.environment-agency.gov.uk/homeandleisure/37817.aspx
- R.6. Environment Agency Chemistry, GQA method, available on the website www.environment-agency.gov.uk/homeandleisure/37815.aspx
- R.7. "The Lost Rivers of London: A Study of Their Effects Upon London and Londoners, and the Effects of London and Londoners on Them", N Barton, 1962.
- R.8. Health Protection Agency and British Geological Survey, Report HPA-RPD-033 'Indicative Atlas of Radon in England and Wells', 2007.
- R.9. BRE Report 211, 'Radon, Guidance on the Protective Measures for New Buildings, 2007.
- R.10. National House-Building Council, Standards, Chapter 4.2, 2003 'Building Near Trees'.
- R.11. CLR 2, 'Guidance on preliminary site inspection of contaminated land', Report by Applied Environmental, DoE 1994.
- R.12. Nitrates Directive (91/676/EC) 1991.
- R.13. CLR 1, 'A framework for assessing the impact of contaminated land on groundwater and surface water', Report by Aspinwall & Co., DoE 1994.
- R.14. CLR 11, 'Model procedures for the management of contaminated land: Risk assessment procedure', DoE 2011.
- R.15. CLR 6, 'Prioritisation & categorisation procedure for sites which may be contaminated', Report by M J Carter Associates, DoE 1995.
- R.16. CLR 4, 'Sampling strategies for contaminated land'. Report by The Centre for Research into the Built Environment, the Nottingham Trent University, DoE, 1994.
- R.17. The Environmental Protection Act, Part IIA, Section 78, 1990.
- R.18. Environment Act 1995, Section 57, DoE 1995.
- R.19. British Standards Institute: BS 10175 'Code of practice for the investigation of potentially contaminated sites', BSI 2011.
- R.20. British Standards Institute: BS 5930 'Code of practice for site investigations', BSi 1999.
- R.21. Methods for the determination of hazardous substances (MDHS) "100 Surveying, sampling and assessment of asbestos-containing materials" HSE, July 2001.

R.22. <http://www.environment-agency.gov.uk/homeandleisure/117020.aspx>.

APPENDIX 4 – ENVIROCHECK DATA SEARCH REPORT



Groundwater Vulnerability

General

- Excluded Site
- Site
- Watercourse
- Watercourse
- Watercourse

Agency and Hydrological

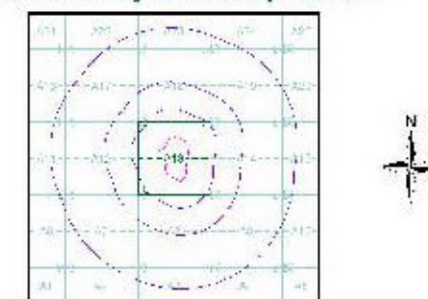
Geological Classes

- Major Aquifer (Highly Permeable)
- Minor Aquifer (Vainly Permeable)
- Non Aquifer (Slightly Permeable)
- Water in Soils
- Drift Deposit

Soil Classes

- Light (1, 2, 3, 4)
- Medium (5, 6, 7)
- Heavy (8, 9, 10)
- Very Heavy (11, 12)
- Very Heavy (13, 14)
- Very Heavy (15, 16)
- Very Heavy (17, 18)
- Very Heavy (19, 20)
- Very Heavy (21, 22)
- Very Heavy (23, 24)
- Very Heavy (25, 26)
- Very Heavy (27, 28)
- Very Heavy (29, 30)
- Very Heavy (31, 32)
- Very Heavy (33, 34)
- Very Heavy (35, 36)
- Very Heavy (37, 38)
- Very Heavy (39, 40)
- Very Heavy (41, 42)
- Very Heavy (43, 44)
- Very Heavy (45, 46)
- Very Heavy (47, 48)
- Very Heavy (49, 50)
- Very Heavy (51, 52)
- Very Heavy (53, 54)
- Very Heavy (55, 56)
- Very Heavy (57, 58)
- Very Heavy (59, 60)
- Very Heavy (61, 62)
- Very Heavy (63, 64)
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- Very Heavy (67, 68)
- Very Heavy (69, 70)
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- Very Heavy (73, 74)
- Very Heavy (75, 76)
- Very Heavy (77, 78)
- Very Heavy (79, 80)
- Very Heavy (81, 82)
- Very Heavy (83, 84)
- Very Heavy (85, 86)
- Very Heavy (87, 88)
- Very Heavy (89, 90)
- Very Heavy (91, 92)
- Very Heavy (93, 94)
- Very Heavy (95, 96)
- Very Heavy (97, 98)
- Very Heavy (99, 100)

Site Sensitivity Context Map - Slice A



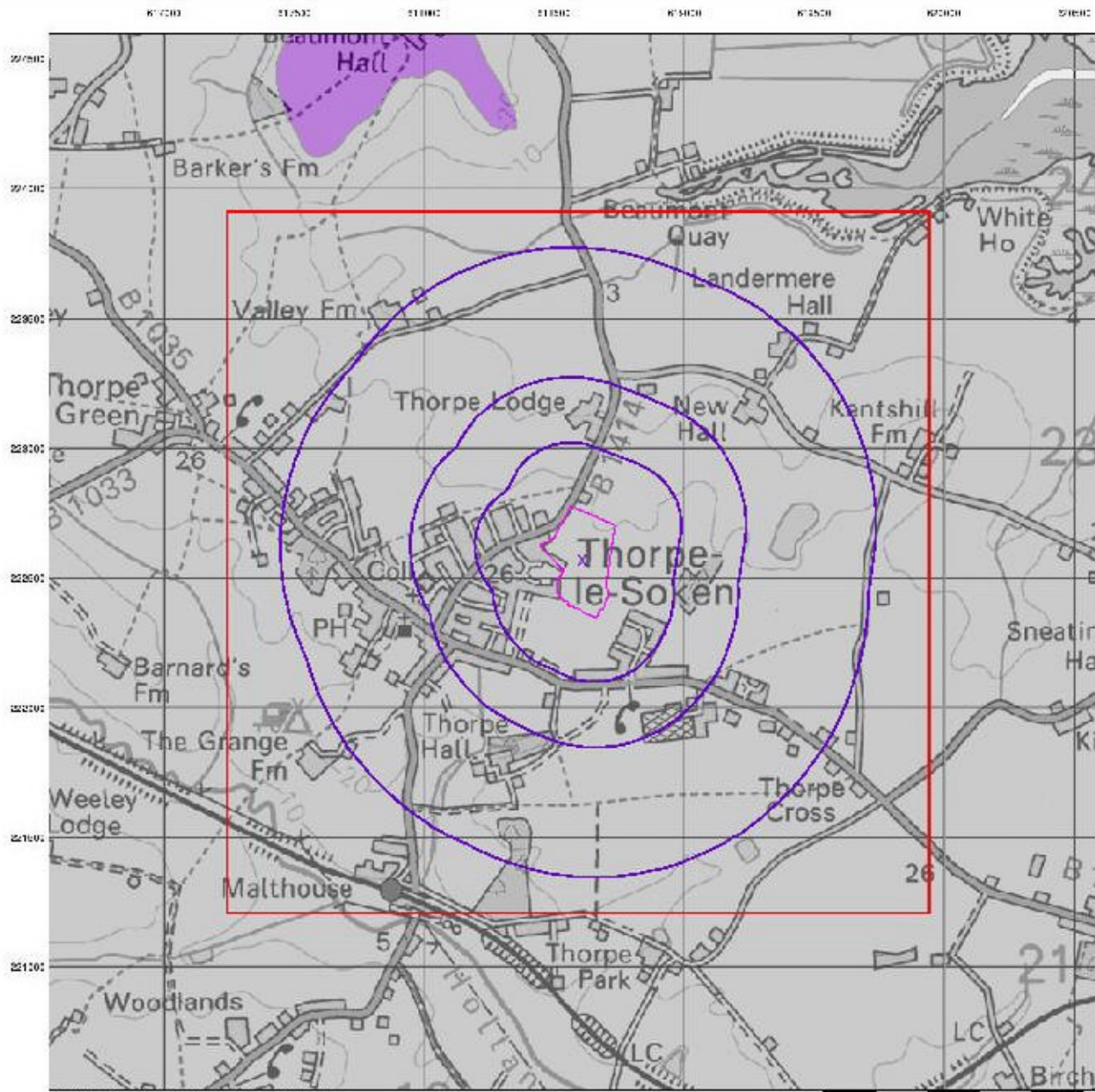
Order Details

Order Number: 81851777 1 1
 Customer Ref: 1696, EC, ARDS, SK
 National Grid Reference: 618510, 222570
 Site: A
 Site Area (Ha): 7.52
 Search Buffer (m): 1000

Site Details

Land East of Landemere Road, Thorpe-le-Soken, Clacton-on-Sea, CO15 6NS





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Bedrock Aquifer Designation

General

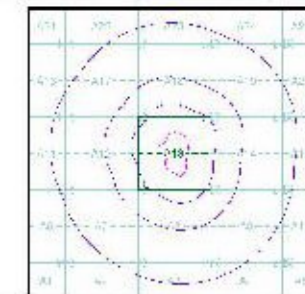
- Excavated Site
- Watercourse
- Local Authority
- Site
- M.F.D.

Agency and Hydrological

Geological Classes

- Primary Aquifer
- Secondary Aquifer
- Secondary Aquifer
- Secondary Land Contaminated
- Urbanised State
- Urban

Site Sensitivity Context Map - Slice A



Order Details

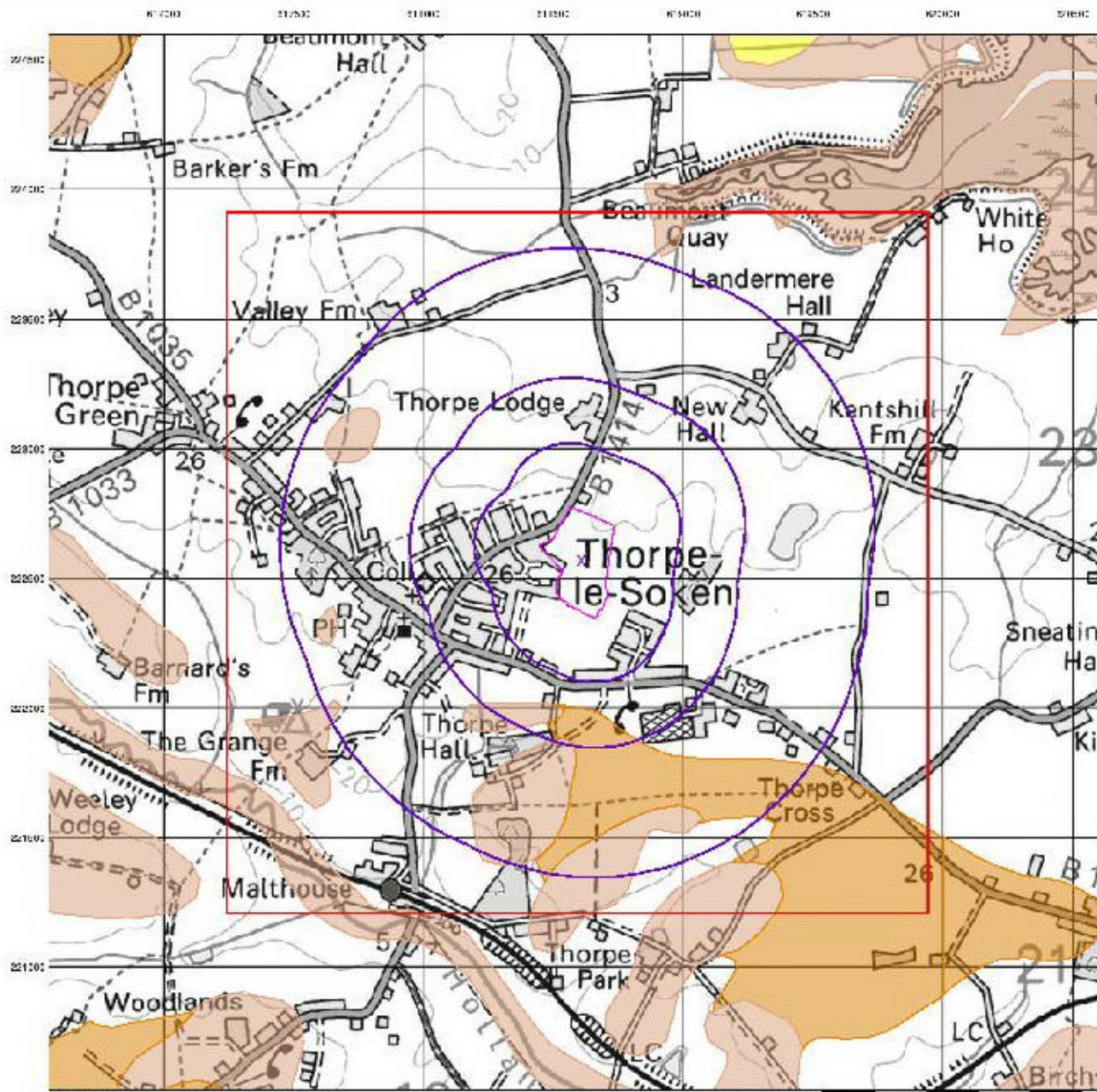
Order Number: 81851777 1 1
 Customer Ref: 1696, EC, ARDS, SK
 National Grid Reference: 618510, 222570
 Site: A
 Site Area (Ha): 7.52
 Search Buffer (m): 1000

Site Details

Land East of Landermere Road, Thorpe-le-Soken, Clacton-on-Sea, CO16 6NS



Tel:
 Fax:
 Web:



Superficial Aquifer Designation

General

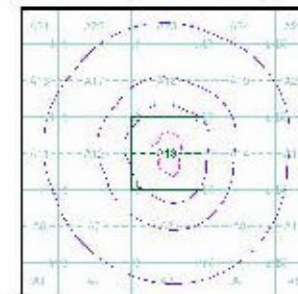
- Excavated Site
- Inhabited Building
- Inhabited Building
- Site
- M.F.D.

Agency and Hydrological

Geological Classes

- Primary Soils
- Secondary Aquifer
- Secondary Aquifer
- Special Land Designated
- Urbanised Sites
- Urban

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 81851777 1 1
 Customer Ref: 1696, EC, ARDS, SK
 National Grid Reference: 618510, 222570
 Site: A
 Site Area (Ha): 7.52
 Search Buffer (m): 1000

Site Details

Land East of Landermere Road, Thorpe-le-Soken, Clacton-on-Sea, CO16 6NS



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

81851777_1_1

Customer Reference:

1696,EC,AR,DS,SK

National Grid Reference:

618610, 222570

Slice:

A

Site Area (Ha):

7.52

Search Buffer (m):

1000

Site Details:

Land East of Landemere Road

Thorpe-le-Soken

Clacton-on-Sea

CO16 0NS

Client Details:

Mrs A Davies

Geosphere Environmental Ltd

Brightwell Bams

Ipswich Road

Brightwell

Suffolk

IP10 0BJ

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	14
Hazardous Substances	-
Geological	15
Industrial Land Use	20
Sensitive Land Use	22
Data Currency	23
Data Suppliers	27
Useful Contacts	28

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v50.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			7	5
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 3				3
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4	Yes			
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 4				1
Water Abstractions	pg 4	5			9 (*17)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 12	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 12	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Detailed River Network Lines	pg 12	Yes	Yes	Yes	n/a
Detailed River Network Offline Drainage	pg 13		Yes		n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 14				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites	pg 14				1
Registered Landfill Sites	pg 14				1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 15	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 15	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards				n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 19	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 20		1	3	8
Fuel Station Entries	pg 21				1
Sensitive Land Use					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas	pg 22				1
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 22	1	1		
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>Discharge Consents</p> <p>Operator: David And Heather Todd Property Type: Domestic Property (Single) Location: Scenefelda Farm Landemere Road, Thorpe Le Soken, Clacton On Sea, Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Holland Brook (Frinton) Reference: Pr2lfc3284 Permit Version: 1 Effective Date: 21st December 1984 Issued Date: 21st December 1984 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Soakaway Into Land Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SW (N)	329	2	618575 223101
2	<p>Discharge Consents</p> <p>Operator: The Residents Property Type: Not Supplied Location: Res. Devlpt At Abbey Close, Off Frinton Road, Thorpe-Le-Soken Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Pr2nfe08072 Permit Version: 1 Effective Date: 10th July 1972 Issued Date: 10th July 1972 Revocation Date: 4th March 1993 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Holland Brook Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	394	2	618200 222200
3	<p>Discharge Consents</p> <p>Operator: Mr & Mrs V Titchmarsh Property Type: Snack Bars,Cafes Etc. Location: Thorpe Lodge Restaurant Landemere Rd, Thorpe Le Soken, Clacton On Sea, Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Not Given Reference: Prenf10812 Permit Version: 1 Effective Date: 18th April 1997 Issued Date: 18th April 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Hamford Water Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	437	2	618720 223180
3	<p>Discharge Consents</p> <p>Operator: Richard L S & Deborah S S Clarke Property Type: Snack Bars,Cafes Etc. Location: Thorpe Lodge Restaurant Landemere Rd, Thorpe Le Soken, Clacton On Sea, Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Prenf10812 Permit Version: 1 Effective Date: 18th April 1997 Issued Date: 18th April 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Hamford Water Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	437	2	618720 223180

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Discharge Consents</p> <p>Operator: Simon Jon Dicks Property Type: Snack Bars,Cafes Etc. Location: Thorpe Lodge Restaurant Landermere Rd, Thorpe Le Soken, Clacton On Sea Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Not Given Reference: Prenf03744 Permit Version: 3 Effective Date: 9th October 1992 Issued Date: 9th October 1992 Revocation Date: 31st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Hamford Water Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A18SE (N)	437	2	618720 223180
3	<p>Discharge Consents</p> <p>Operator: Simon Jon Dicks Property Type: Snack Bars,Cafes Etc. Location: Thorpe Lodge Restaurant Landermere Rd, Thorpe Le Soken, Clacton On Sea Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Prenf03744 Permit Version: 2 Effective Date: 4th February 1991 Issued Date: 4th February 1991 Revocation Date: 8th October 1992 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into And/Or Watercourse Environment: Receiving Water: Hamford Water Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	437	2	618720 223180
3	<p>Discharge Consents</p> <p>Operator: Simon Jon Dicks Property Type: Snack Bars,Cafes Etc. Location: Thorpe Lodge Restaurant Landermere Rd, Thorpe Le Soken, Clacton On Sea Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Prenf03744 Permit Version: 1 Effective Date: 16th October 1990 Issued Date: 16th October 1990 Revocation Date: 3rd February 1991 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Hamford Water Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	437	2	618720 223180
4	<p>Discharge Consents</p> <p>Operator: Mr Mark Parker Property Type: Sewage Disposal Works - Other Location: Parkers Farm Landermere, Walton Road, Thorpe Le Soken, Essex, Co16 0ng Authority: Environment Agency, Anglian Region Catchment Area: Blackwater Estuary Tributaries Reference: Prenf13958 Permit Version: 1 Effective Date: 6th May 2002 Issued Date: 6th May 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of Landermere Creek Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	512	2	618850 223210

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	<p>Discharge Consents</p> <p>Operator: H Walmseley Property Type: Sewage Disposal Works - Other Location: Rose Farm Frinton Rd, Thorpe-Le-Soken, Essex, Co16 0hs Authority: Environment Agency, Anglian Region Catchment Area: Not Given Reference: Prenf11133 Permit Version: 1 Effective Date: 14th November 1997 Issued Date: 14th November 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Holland Brook Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9SW (SE)	708	2	619190 221880
6	<p>Discharge Consents</p> <p>Operator: Paul Woolnough Property Type: Sewage Disposal Works - Other Location: Tarbys Fell Farm 14 Frinton Road, Thorpe-Le-Soken, Essex, Co16 0hp Authority: Environment Agency, Anglian Region Catchment Area: Not Given Reference: Prenf11059 Permit Version: 1 Effective Date: 10th September 1997 Issued Date: 10th September 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Holland Brook Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9NE (SE)	759	2	619320 221960
7	<p>Discharge Consents</p> <p>Operator: Brown Roofing Contractors Ltd Property Type: Domestic Property (Single) Location: Valley Barns Golden Lane, Thorpe Le Soken, Nr Clacton, Essex, Co16 0le Authority: Environment Agency, Anglian Region Catchment Area: Holland Brook (Frinton) Reference: Prenf15957 Permit Version: 1 Effective Date: 29th August 2003 Issued Date: 29th August 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Landermere Brook Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A17NW (NW)	954	2	617885 223443
8	<p>Discharge Consents</p> <p>Operator: Strutt & Parker (Farms) Ltd Property Type: Arable Farming Location: Landermere Thorpe-Le-Soken, Clacton-On-Sea, Essex, Co16 0np Authority: Environment Agency, Anglian Region Catchment Area: Catchment 29 Unknown Detail Reference: Gwelf50524 Permit Version: 1 Effective Date: 1st April 1999 Issued Date: 17th May 2000 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Agricultural And Surface Discharge: Onto Land Environment: Receiving Water: Groundwater Status: Deemed Groundwater Regulations Authorisation Positional Accuracy: Located by supplier to within 10m</p>	A19NE (NE)	992	2	619400 223440
9	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Green Spark Renewable Energy (Uk) Ltd Location: Colchester Business Park, Colchester, Essex, Co4 9yq Authority: Tendring District Council, Environmental Services Permit Reference: 15/00105/EP Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG1/12 Combustion of fuel manufactured from/or comprised of, solid waste in appliances between 0.4-3MW thermal input Status: Permitted Positional Accuracy: Located by supplier to within 100m</p>	A9SW (SE)	605	3	619045 221883

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: RMC (EC) Ltd Location: Rose Farm Quarry, Thorpe Park Lane, CLACTON-ON-SEA, Essex, CO16 0HN Authority: Tendring District Council, Environmental Services Permit Reference: EPO 18A Dated: 27th September 1996 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorisation revokedRevoked Positional Accuracy: Manually positioned to the road within the address or location</p>	A9NW (SE)	630	3	619196 222007
11	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Forbourn Motors Location: High Street, THORPE LE SPOKEN, Essex, CO16 0HA Authority: Tendring District Council, Environmental Services Permit Reference: Ppc060 Dated: 5th April 2002 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Site Closed Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	688	3	617772 222484
	Nearest Surface Water Feature	A13SW (SW)	0	-	618536 222528
12	<p>Substantiated Pollution Incident Register</p> <p>Authority: Environment Agency - Anglian Region, Eastern Area Incident Date: 23rd May 2005 Incident Reference: 314624 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Oils - Diesel (Including Agricultural)</p>	A7SE (SW)	642	2	618223 221846
13	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/010 Permit Version: 1 Location: Tributary Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 15th August 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (SE)	0	2	618631 222557
13	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/001 Permit Version: 2 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Damont'S Farm, Thorpe-Le-Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 9th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (E)	0	2	618630 222560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/001 Permit Version: 1 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Damont'S Farm, Thorpe-Le-Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (E)	0	2	618630 222560
13	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: 8/37/26/S/0108 Permit Version: 1 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Damonts Farm Thorpe Le Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (E)	0	2	618630 222560
13	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: 8/37/26/S/0100 Permit Version: 100 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st September 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A13SE (E)	0	2	618630 222560
14	<p>Water Abstractions</p> <p>Operator: Parkers Nurseries Limited Licence Number: 8/37/26/G/0037 Permit Version: 101 Location: Bradewick Nursery, Thorpe Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 16th May 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	564	2	619000 221900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	<p>Water Abstractions</p> <p>Operator: Parkers Nurseries Limited Licence Number: 8/37/26/*G/0037 Permit Version: 101 Location: Bradewick Nursery, Thorpe Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 16th May 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	564	2	619000 221900
14	<p>Water Abstractions</p> <p>Operator: Triangle Nursery (Thorpe) Ltd Licence Number: 8/37/26/*G/0037 Permit Version: 100 Location: Bradewick Nursery, Thorpe Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 2nd April 1969 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	564	2	619000 221900
14	<p>Water Abstractions</p> <p>Operator: Triangle Nursery (Thorpe) Ltd Licence Number: 8/37/26/*G/0037 Permit Version: 100 Location: Bradewick Nursery, Thorpe Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 2nd April 1969 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NW (SE)	564	2	619000 221900
15	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/001 Permit Version: 2 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Damont'S Farm, Thorpe-Le-Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 9th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A19SE (NE)	763	2	619450 222970

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/001 Permit Version: 1 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Damont'S Farm, Thorpe-Le-Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A19SE (NE)	763	2	619450 222970
15	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: 8/37/26/*S/0108 Permit Version: 1 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Damonts Farm Thorpe Le Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A19SE (NE)	763	2	619450 222970
15	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: 8/37/26/*S/0100 Permit Version: 100 Location: Trib Of Hamford Water Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st September 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A19SE (NE)	763	2	619450 222970
16	<p>Water Abstractions</p> <p>Operator: Messrs. A. And R. Leiper, Licence Number: 8/37/26/*s/003 Permit Version: Not Supplied Location: Thorpe Hall, CLACTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 6 Yearly Rate (m3): 273000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A7SE (SW)	969	2	618000 221600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/011 Permit Version: 1 Location: Beaumont Brook At Beaumont Bridge Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 15th August 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A23SW (N)	1066	2	618472 223834
	Water Abstractions Operator: Redland Aggregates Ltd Licence Number: 8/37/26/*g/047 Permit Version: Not Supplied Location: Rose Fm Quarry, THORPE-LE-SOKEN Authority: Environment Agency, Anglian Region Abstraction: Sand And Gravel Washing Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 439 Yearly Rate (m3): 1745660 Details: Glacial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A4NE (SE)	1105	2	619300 221450
	Water Abstractions Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/002 Permit Version: 2 Location: Beaumont Bk At Beaumont Bridge Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Thorpe-Le-Soken & Beaumnont-Cum-Moze Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 9th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A23SW (N)	1123	2	618450 223890
	Water Abstractions Operator: Strutt & Parker (Farms) Ltd Licence Number: An/037/0026/002 Permit Version: 1 Location: Beaumont Bk At Beaumont Bridge Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Thorpe-Le-Soken & Beaumnont-Cum-Moze Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A23SW (N)	1123	2	618450 223890

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: 8/37/26/*S/0109 Permit Version: 1 Location: Beaumont Bk At Beaumont Bridge Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Thorpe Le Soken & Beaumont Cum Moze Essex Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A23SW (N)	1123	2	618450 223890
	<p>Water Abstractions</p> <p>Operator: Strutt & Parker (Farms) Ltd Licence Number: 8/37/26/*S/0101 Permit Version: 100 Location: Beaumont Bk At Beaumont Bridge Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Temporary Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st September 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A23SW (N)	1123	2	618450 223890
	<p>Water Abstractions</p> <p>Operator: L & J Robinson Licence Number: 8/37/26/*S/0022 Permit Version: 100 Location: Grange Farm, Thorpe Le Soken Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 May Authorised End: 30 September Permit Start Date: 1st June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A6SE (SW)	1254	2	617500 221700
	<p>Water Abstractions</p> <p>Operator: Messrs Manasseh & Bell Licence Number: 8/37/26/*G/0019 Permit Version: 100 Location: The Firs 1, Kirby Cross. Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A3SE (S)	1258	2	618800 221100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: H & R Hopgood Licence Number: 8/37/26/*G/0014 Permit Version: 100 Location: Quay Farm, Beaumont-Cum-Moze Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A24NW (N)	1303	2	619000 224000
	Water Abstractions Operator: Messrs Manasseh & Bell Licence Number: 8/37/26/*G/0019 Permit Version: 100 Location: The Firs 2, Kirby Cross. Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A4SW (S)	1421	2	619100 221000
	Water Abstractions Operator: J & M Robinson Licence Number: 8/37/26/*S/0089 Permit Version: 101 Location: Holland Brook, Thorpe Le Soken Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Grange Farm, Thorpe Le Soken Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 12th September 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SE (SW)	1422	2	617300 221700
	Water Abstractions Operator: L & J Robinson Licence Number: 8/37/26/*S/0089 Permit Version: 100 Location: Holland Brook, Thorpe Le Soken Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st November 1984 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SE (SW)	1422	2	617300 221700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Messrs. A. And R. Leiper, Licence Number: 8/37/26/*s/003 Permit Version: Not Supplied Location: Woodlands 1, CLACTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 273000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SW (SW)	1451	2	617900 221100
	Water Abstractions Operator: R.L.M. & J.R. Robinson, Licence Number: 8/37/26/*s/022 Permit Version: Not Supplied Location: Holland Brk, THORPELE SOKEN Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 7 Yearly Rate (m3): 290940 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1NE (SW)	1456	2	617400 221500
	Water Abstractions Operator: Messrs. A. And R. Leiper, Licence Number: 8/37/26/*s/003 Permit Version: Not Supplied Location: Woodlands 2, CLACTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 273000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SW (SW)	1533	2	617600 221195
	Water Abstractions Operator: J & M Robinson Licence Number: 8/37/26/*S/0022 Permit Version: 101 Location: Holland Brk, Thorpe Le Soken Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Grange Farm, Thorpe Le Soken Authorised Start: 01 May Authorised End: 30 September Permit Start Date: 12th September 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SW (SW)	1645	2	617100 221600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: L & J Robinson Licence Number: 8/37/26/*S/0022 Permit Version: 100 Location: Holland Brk, Thorpe Le Soken Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 May Authorised End: 30 September Permit Start Date: 1st June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SW (SW)	1645	2	617100 221600
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 33 East Suffolk Scale: 1:100,000	A13NE (N)	0	2	618607 222567
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A13NE (N)	0	4	618607 222567
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
17	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (SE)	0	2	618628 222553
18	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (NE)	4	2	618714 222718

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (NE)	7	2	618742 222703
20	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Drain Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A14NW (NE)	313	2	619015 222844
21	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A7NE (SW)	420	2	618215 222141
22	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A14SW (E)	439	2	619142 222375
23	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D006	A8NW (S)	169	2	618516 222223

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Historical Landfill Sites Licence Holder: Cawoods Aggregates (SE) Limited Location: Rose Farm, Thorpe-Le-Soken, Tendring, Essex Name: Rose Farm Operator Location: Southlands, Ripon Road, Harrogate Boundary Accuracy: As Supplied Provider Reference: EAHL00535 First Input Date: 24th July 1978 Last Input Date: 19th September 1991 Specified Waste: Deposited Waste included Inert, Industrial and Commercial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 1500/0137 BGS Ref: Not Supplied Other Ref: 46/78, TEN004	ABSE (S)	755	2	618920 221642
	Local Authority Landfill Coverage Name: Tendring District Council - Has no landfill data to supply		0	9	618607 222567
	Local Authority Landfill Coverage Name: Essex County Council - Has supplied landfill data		0	5	618607 222567
25	Local Authority Recorded Landfill Sites Location: Rose Farm, Thorpe-Le-Soken, Clacton Reference: 14/421/14 Authority: Essex County Council Last Reported Status: Not Supplied Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	ABSE (S)	754	5	618920 221643
26	Registered Landfill Sites Licence Holder: Cawoods Aggregates (S.E) Ltd Licence Reference: 46/78 Site Location: Rose Farm Quarry, Thorpe-Le-Soken, Frinton On Sea, Essex Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: Southlands, Ripon Road, HARROGATE, North Yorkshire, HG1 2HY Authority: Environment Agency - Anglian Region, Eastern Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 24th July 1978 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate Authorised Waste: Concrete Waste	A9SW (S)	770	2	618948 221637

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Thames Group	A13NE (N)	0	4	618607 222567
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (N)	0	4	618607 222567
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SE (N)	228	4	618607 223000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	265	4	619000 222567
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (S)	350	4	618607 222000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: <15 mg/kg	A8NW (S)	356	4	618589 222000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: <15 mg/kg	A8NW (S)	356	4	618544 222009

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A8NW (S)	370	4	618496 222015
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A8NW (S)	372	4	618527 222000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A19SW (NE)	398	4	619000 223000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A12NE (W)	445	4	618000 222567
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A8NW (S)	446	4	618471 221943
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A8SW (S)	480	4	618529 221886

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A9NW (SE)	488	4	619000 222000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A17SE (NW)	583	4	618000 223000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A9SW (SE)	638	4	619000 221811
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A7NE (SW)	675	4	618000 222000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A17SW (NW)	752	4	617787 222987
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel <15 mg/kg</p> <p>Concentration:</p>	A17SW (NW)	753	4	617793 223000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A8SE (S)	778	4	618887 221607
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A9SW (S)	808	4	619000 221617
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12SW (W)	829	4	617655 222373
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A9SW (SE)	888	4	619055 221556
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A7NW (SW)	945	4	617677 222003
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A7NW (SW)	948	4	617675 222000
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	4	618607 222567

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	<p>Contemporary Trade Directory Entries</p> <p>Name: Garden Supply Nursery Location: 1, Hill Cottages, Landermere Road, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0NF Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NW (N)	17	-	618578 222784
28	<p>Contemporary Trade Directory Entries</p> <p>Name: Alpha Cleaning Location: 2, Oak Close, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0HU Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8NW (SW)	334	-	618276 222201
29	<p>Contemporary Trade Directory Entries</p> <p>Name: Rowing Restoration Ltd Location: 22, Landermere Road, Thorpe-le-Soken, Clacton-on-sea, Essex, CO16 0LQ Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	348	-	618156 222429
30	<p>Contemporary Trade Directory Entries</p> <p>Name: Essex Cars Wanted Location: Landermere Road, Thorpe-Le-Soken, Clacton-on-Sea, Essex, CO16 0LG Classification: Car Component Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A12SE (SW)	498	-	618034 222314
31	<p>Contemporary Trade Directory Entries</p> <p>Name: K D Tyres Location: The Forge, Station Road, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0HD Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	506	-	618086 222170
32	<p>Contemporary Trade Directory Entries</p> <p>Name: Hytreat Location: Unit 4, Bosworth House, High Street, Thorpe-le-Soken, CLACTON-ON-SEA, Essex, CO16 0EA Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	593	-	617880 222446
32	<p>Contemporary Trade Directory Entries</p> <p>Name: A A Osborne & Son Location: Unit 1, Rear of Bosworth House, High Street, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0EA Classification: Clocks & Watches - Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	593	-	617880 222446
32	<p>Contemporary Trade Directory Entries</p> <p>Name: Gd Plastics Location: High Street, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0EA Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	634	-	617841 222432
33	<p>Contemporary Trade Directory Entries</p> <p>Name: Forbourn Motors Ltd Location: High Street, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0EA Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	688	-	617772 222484
33	<p>Contemporary Trade Directory Entries</p> <p>Name: Orchard Garage Location: 1, High Street, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0DY Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	688	-	617772 222484
33	<p>Contemporary Trade Directory Entries</p> <p>Name: Forbourn Motors Location: High Street, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0EA Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	688	-	617772 222484

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Contemporary Trade Directory Entries Name: P & Q Location: Weald Cottage, Station Road, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0HH Classification: Metal Workers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	736	-	617941 221976
35	Fuel Station Entries Name: Forbourn Motors Ltd Location: High Street, Thorpe-le-Soken, Clacton-on-Sea, Essex, CO16 0EA Brand: MURCO Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A12SW (W)	688	-	617772 222484

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Environmentally Sensitive Areas Name: Essex Coast Multiple Areas: Y Total Area (m2): 22353128.37 Source: Natural England	A18NE (N)	535	6	618753 223273
37	Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13NE (N)	0	7	618607 222567
38	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13SW (S)	3	7	618550 222397

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Tendring District Council - Environmental Services	March 2014	Annual Rolling Update
Discharge Consents Environment Agency - Anglian Region	January 2016	Quarterly
Enforcement and Prohibition Notices Environment Agency - Anglian Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Anglian Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Anglian Region	January 2016	Quarterly
Local Authority Integrated Pollution Prevention And Control Tendring District Council - Environmental Services	December 2015	Annual Rolling Update
Local Authority Pollution Prevention and Controls Tendring District Council - Environmental Services	December 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Tendring District Council - Environmental Services	December 2015	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Anglian Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Anglian Region - Eastern Area	January 2016	Quarterly
Water Abstractions Environment Agency - Anglian Region	January 2016	Quarterly
Water Industry Act Referrals Environment Agency - Anglian Region	January 2016	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	January 2015	As notified
Source Protection Zones Environment Agency - Head Office	January 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly

Agency & Hydrological	Version	Update Cycle
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2016	Quarterly
Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	November 2015	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Eastern Area	October 2015	Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Eastern Area	January 2016	Quarterly
Local Authority Landfill Coverage Essex County Council Tendring District Council	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Tendring District Council Essex County Council	May 2000 November 2004	Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Anglian Region - Eastern Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Anglian Region - Eastern Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Eastern Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	February 2016	Bi-Annually
Explosive Sites Health and Safety Executive	February 2016	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Essex County Council Tendring District Council	February 2016 January 2016	Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Essex County Council Tendring District Council	February 2016 January 2016	Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2015	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	July 2014	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	November 2015	Quarterly
Fuel Station Entries Catalist Ltd - Experian	November 2015	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty Natural England	October 2015	Bi-Annually
Environmentally Sensitive Areas Natural England	October 2015	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	October 2015	Bi-Annually
Marine Nature Reserves Natural England	October 2015	Bi-Annually
National Nature Reserves Natural England	October 2015	Bi-Annually
National Parks Natural England	August 2015	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites Natural England	October 2015	Bi-Annually
Sites of Special Scientific Interest Natural England	October 2015	Bi-Annually
Special Areas of Conservation Natural England	October 2015	Bi-Annually
Special Protection Areas Natural England	October 2015	Bi-Annually




A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	






Contact	Name and Address	Contact Details
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Tendring District Council - Environmental Services Council Offices, Weeley, Clacton-on-sea, Essex, CO16 9AJ	Telephone: 01 255 425501 Fax: 01 225 253149 Website: www.tendringdc.gov.uk
4	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 01 15 936 3143 Fax: 01 15 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
5	Essex County Council County Hall, Chelmsford, Essex, CM1 1YS	Telephone: 01 245 492211 Website: www.essexcc.gov.uk
6	Natural England Suite D, Unex House, Bourges Boulevard, Peterborough, Cambridgeshire, PE1 1NG	Telephone: 0845 600 3078 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
7	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 01 13 261 3333 Fax: 01 13 230 0879
8	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01 454 624400 Fax: 01 454 624409
9	Tendring District Council The Council, Weeley, Clacton-On-Sea, Essex, CO16 9AJ	Telephone: 01 255 830455 Fax: 01 255 256114 Website: www.tendringdc.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01 235 822622 Fax: 01 235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

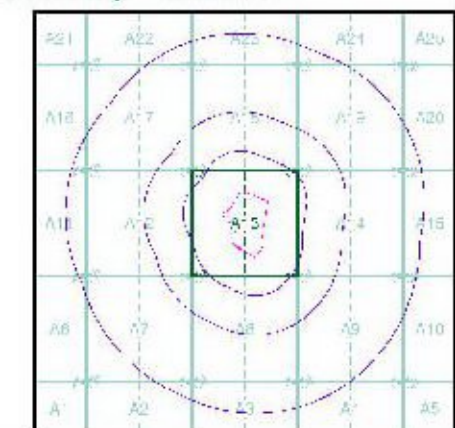
General

-  Special Site
-  Search Buffer
-  Bearing Reference Point

Agency and Hydrological (Flood)

-  Extra protection from rivers or sea without defences (Zones 2)
-  Flooding from rivers or sea without defences (Zone 3)
-  Area benefiting from flood defence
-  Flood Water Storage Areas
-  Flood Defence

Flood Map - Slice A

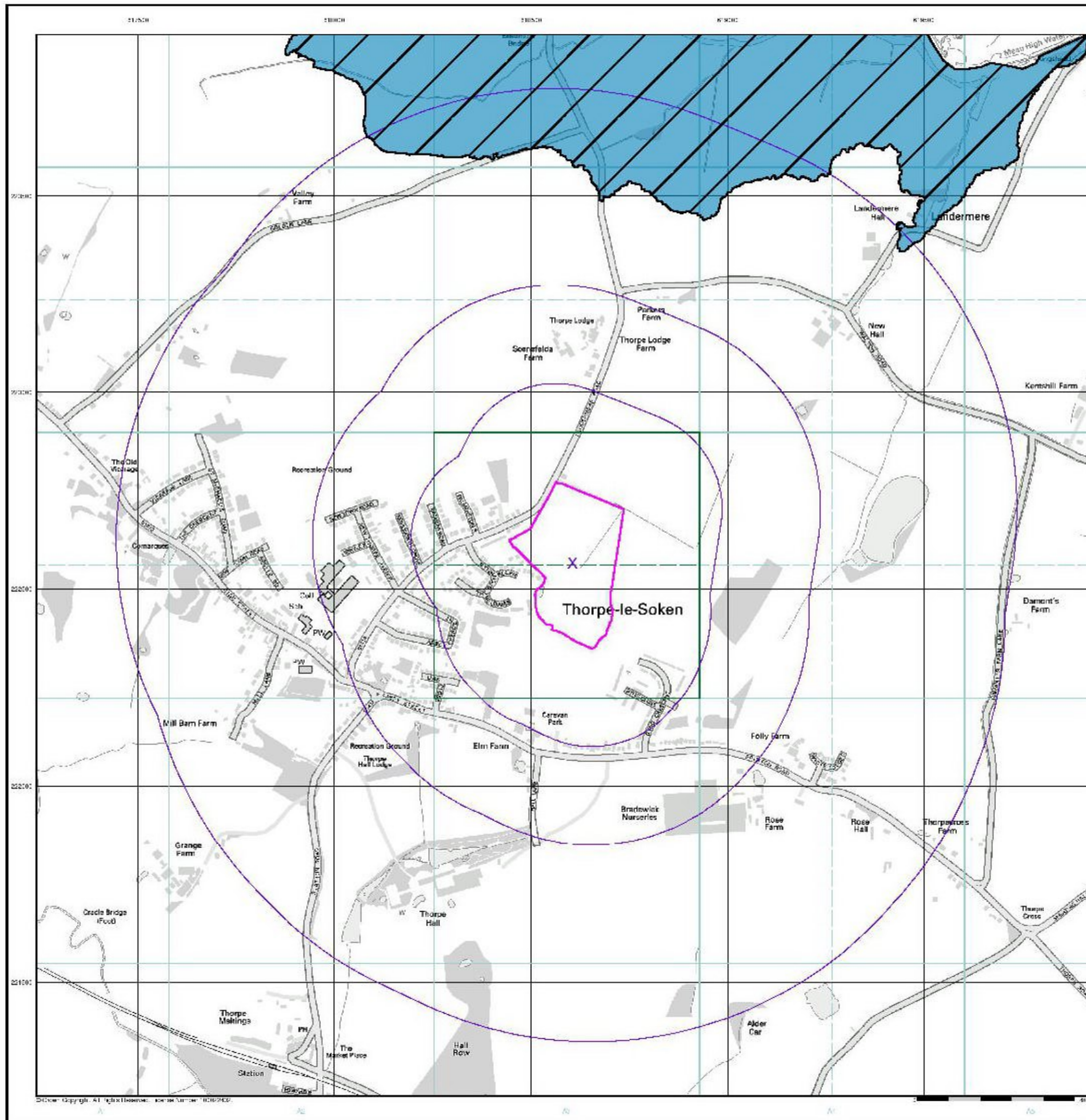


Order Details

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 National Grid Reference: 618610, 222570
 Slice: A
 Site Area (Ha): 7.52
 Search Buffer (m): 1000

Site Details






Land East of Landermere Road, Thorpe-le-Soken, Clacton-on-Sea, CO16 0NS



General

-  Special Site
-  Special Buffers
-  Dearing Reference Point
-  Map ID
-  Several of Type of Location

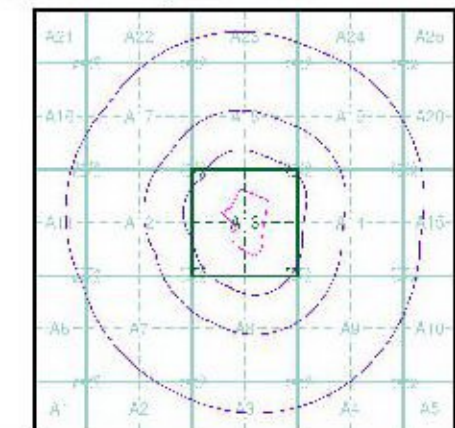
Agency and Hydrological (Boreholes)

-  EDS Borehole Depth 0 - 10m
-  EDS Borehole Depth 10 - 30m
-  EDS Borehole Depth 30m
-  Unfinished
-  Cover

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A

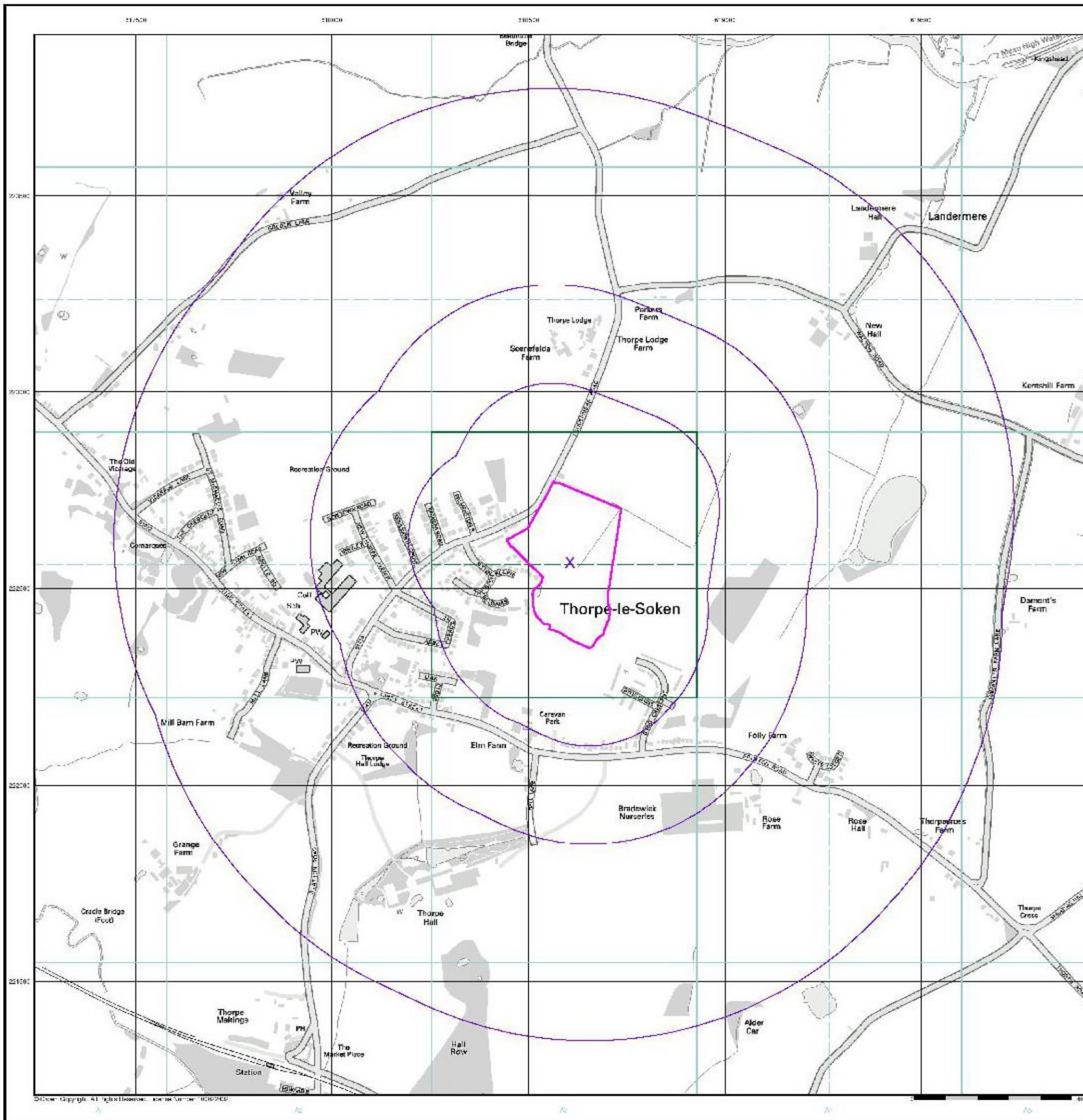


Order Details

Order Number: 81851777_1_1
 Customer Ref: 1696_EC_ART_DS_SK
 National Grid Reference: 618610, 222570
 Slice: A
 Site Area (Ha): 7.52
 Search Buffer (m): 1000

Site Details

Land East of Landermere Road, Thorpe-le-Soken, Clacton-on-Sea, CO16 0NS



General

- Spotline File
- Specific Limits (s)
- Design Reference Point
- Map ID

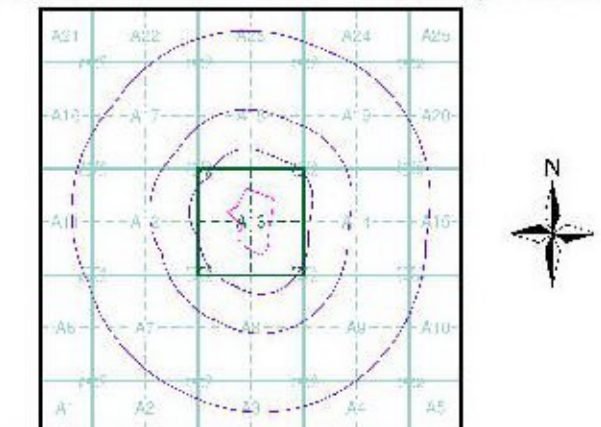
Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Landfill River
- Lake/Impoundment
- Off-line Drainage Feature
- Flooded Catchment (1 in 100)
- Sub-ground River (1 in 100)
- Underground River (Local Knowledge)
- Downstream of Light Water Main
- Downstream of Deepwater Extension
- Natural River Location

Contours (Height in metres)

- Standard Contour: 105
- Master Contour: 100
- Spot Height: 107.3
- MLW - Mean Low Water
- MHW - Mean High Water

EA/NRW Detailed River Network Map - Slice A

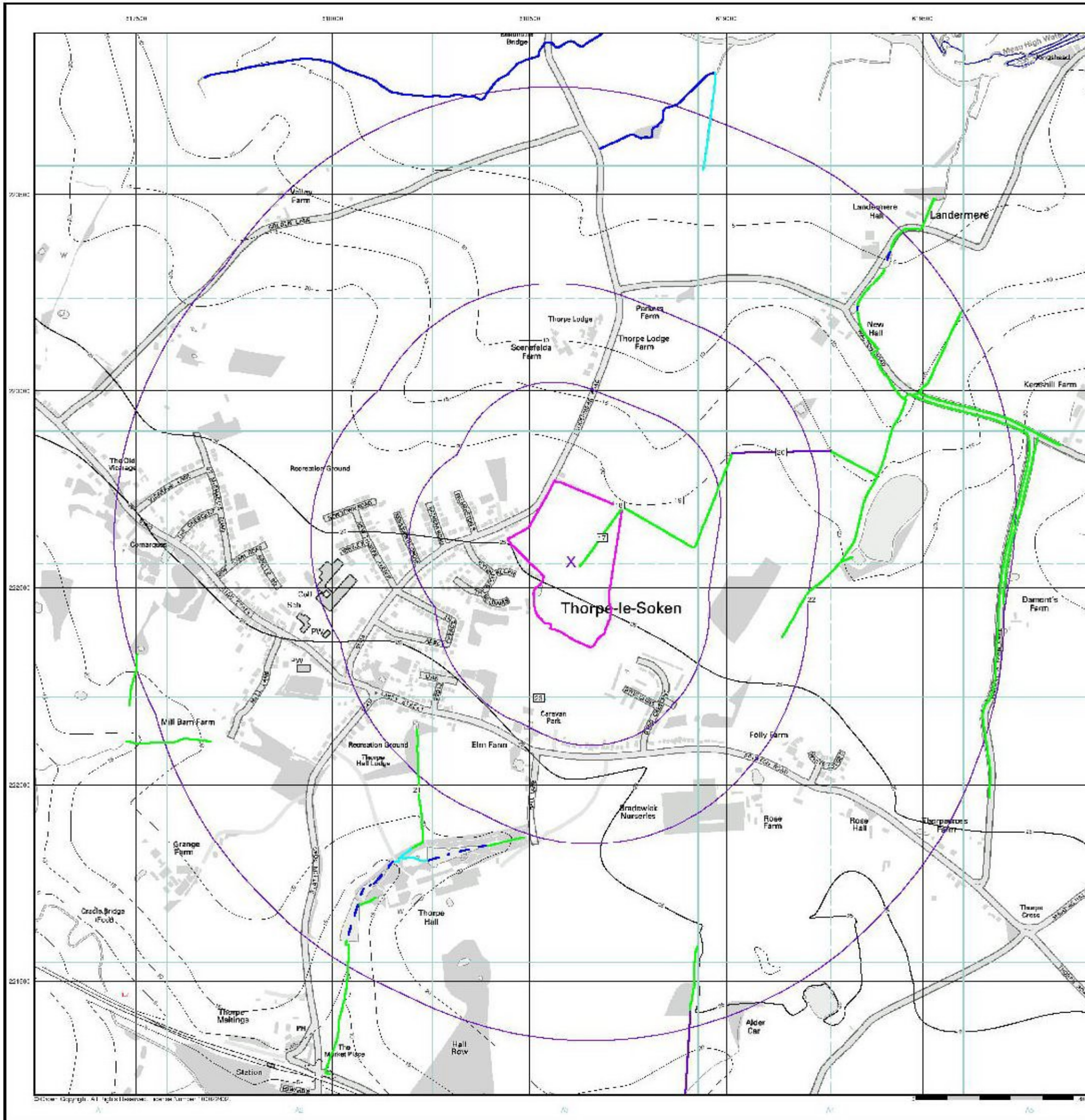


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Site Details




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General

-  Sited/Site
-  Search Buffer
-  Bearing Reference Point

Risk of Flooding from Surface Water

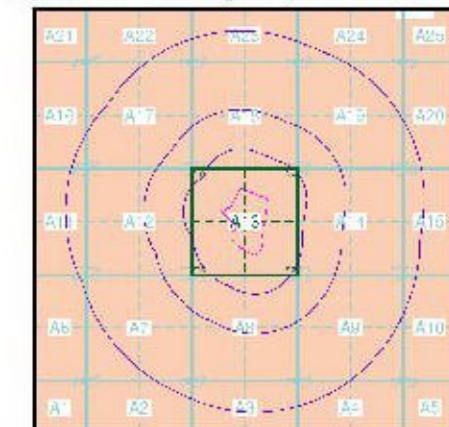
-  High - 10 Year Return
-  Medium - 100 Year Return
-  Low - 1000 Year Return

Suitability

See the suitability map below

-  National county
-  County to town
-  Town to street
-  Street to parcel of land
-  Property

EA/NRW Suitability Map - Slice A

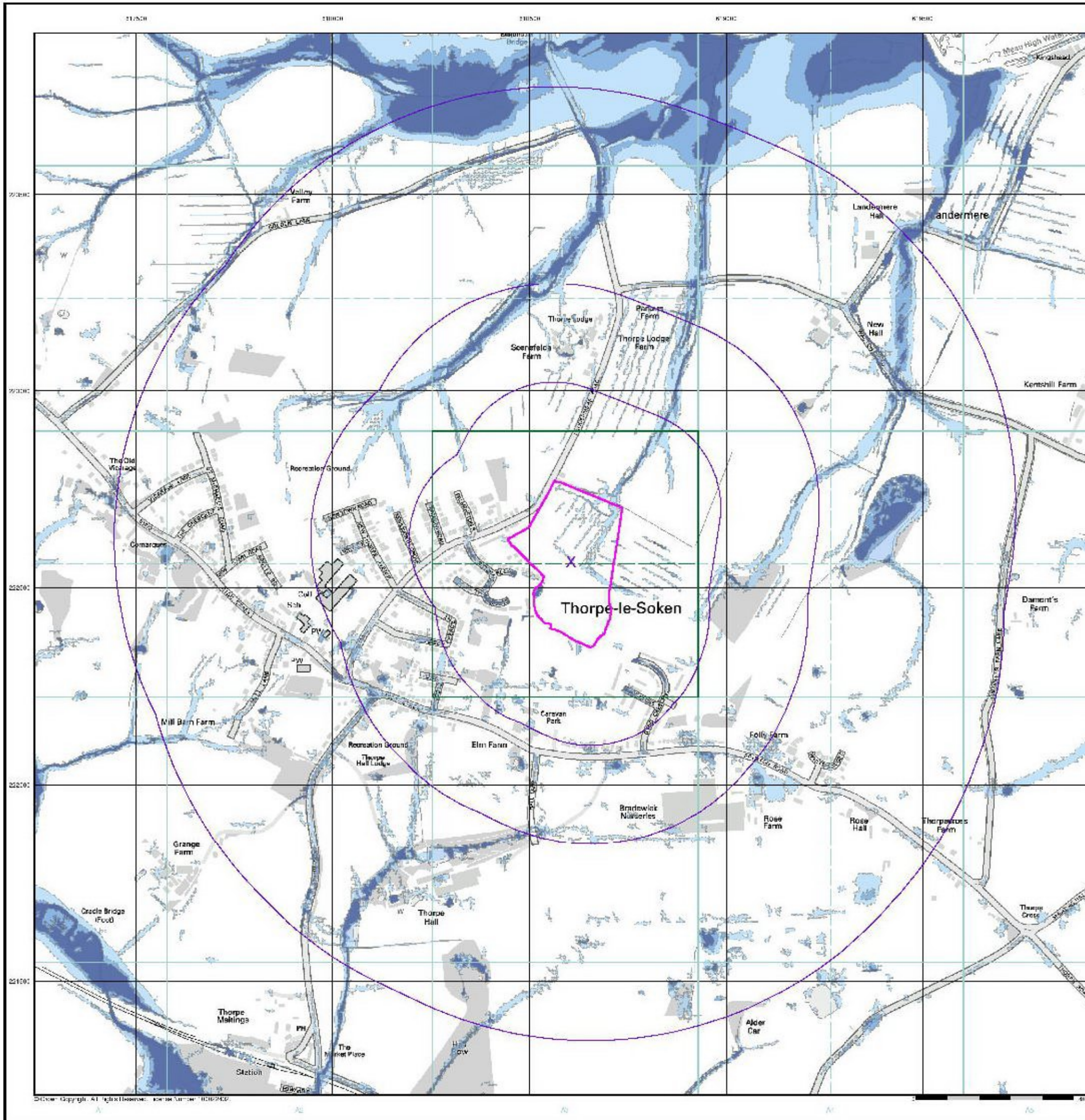


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Site Details

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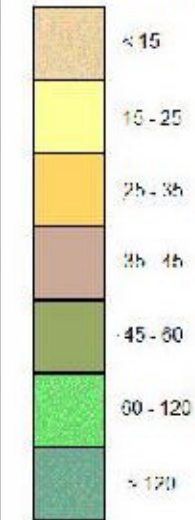


General

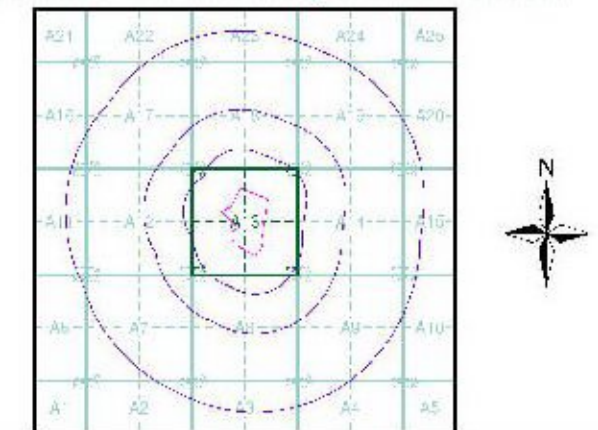
 Specific Site
  Specific Buffer Size
  User Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

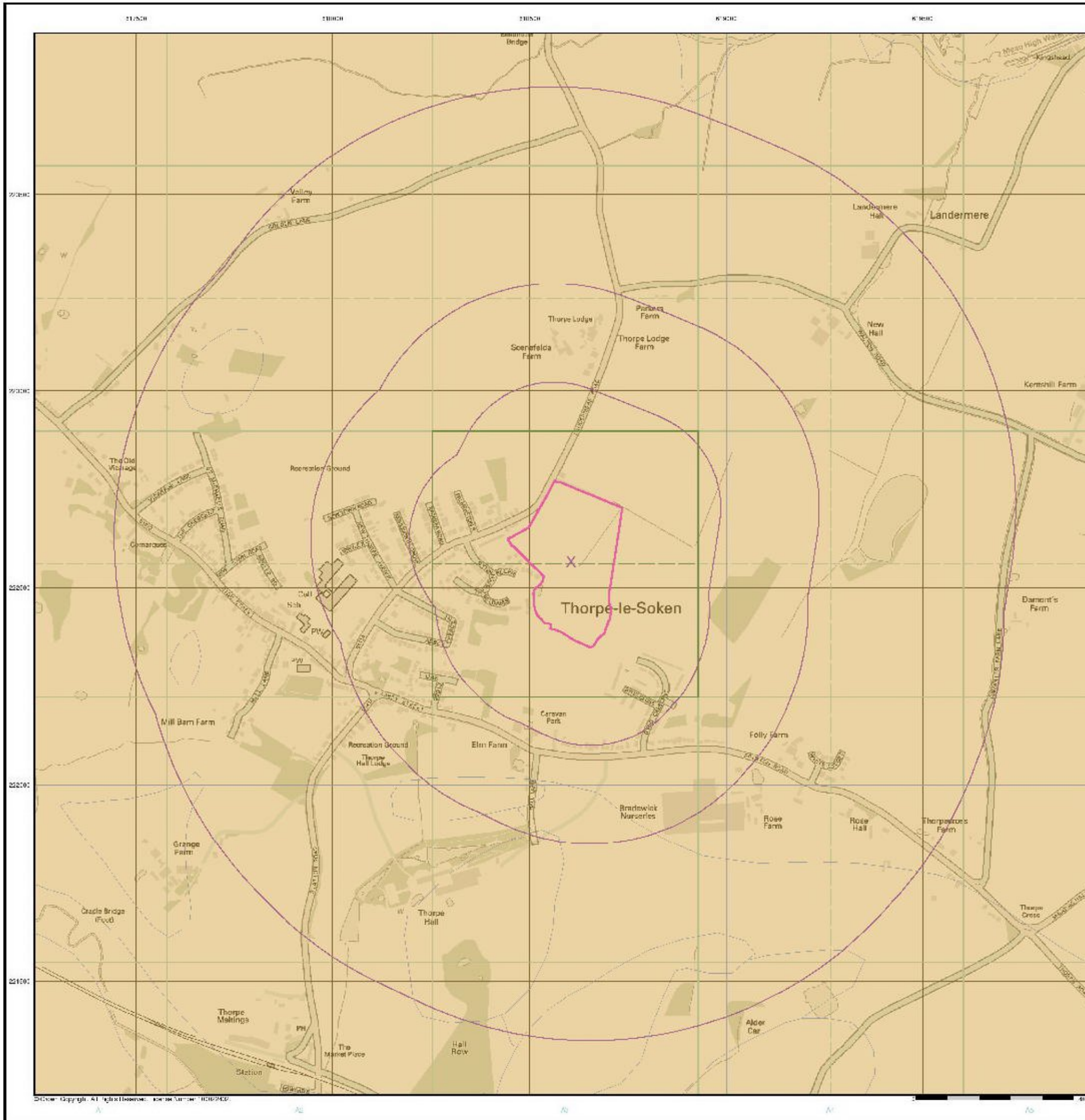


Order Details

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Site Details

Land East of Landermere Road, Thorpe-le-Soken, Clacton-on-Sea, CO16 0NS

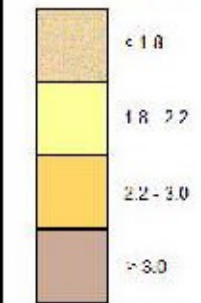


General

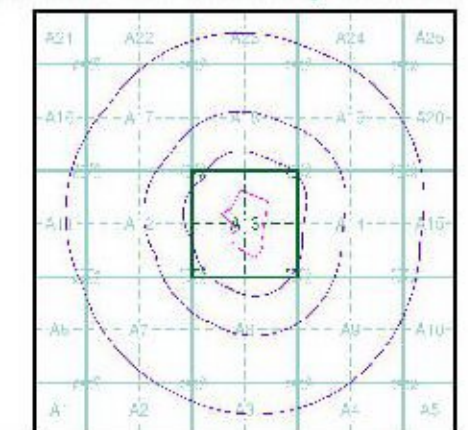
○ Specific Site
 ○ Specific Point(s)
 X Receptor Location

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A

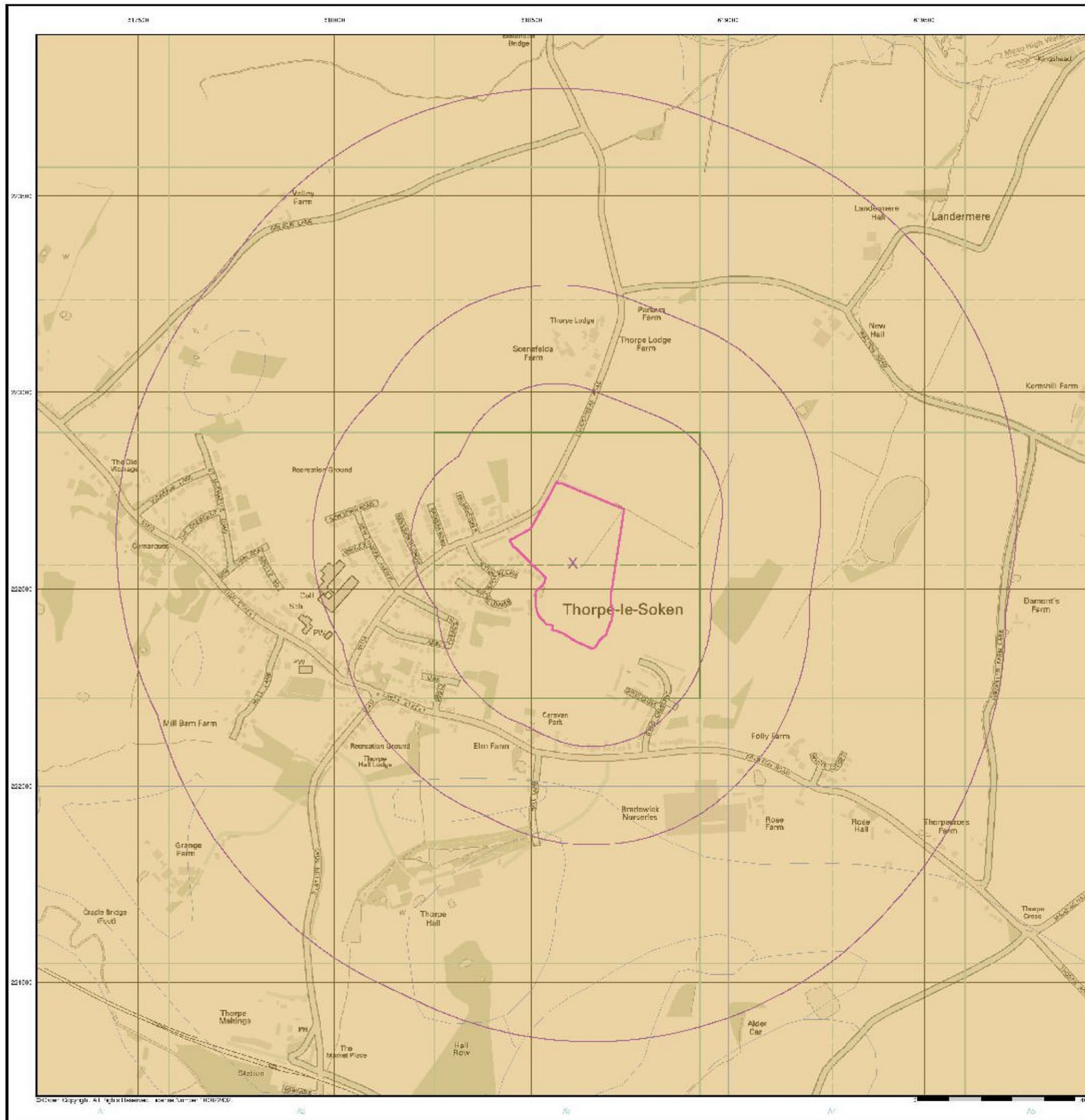


Order Details




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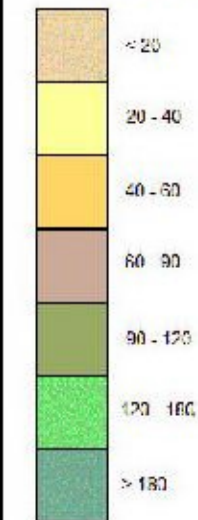


General

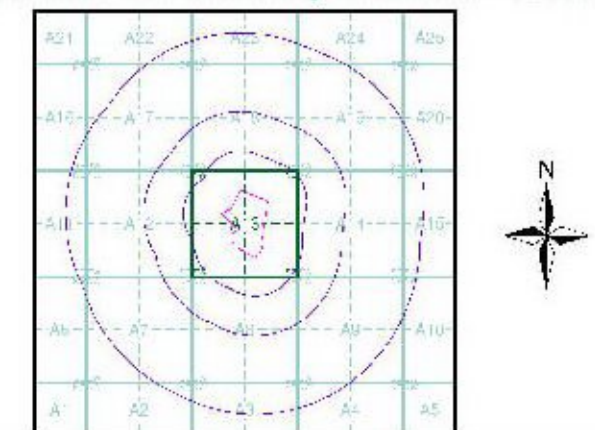
 Specifics  Specifics Filtered  Missing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A

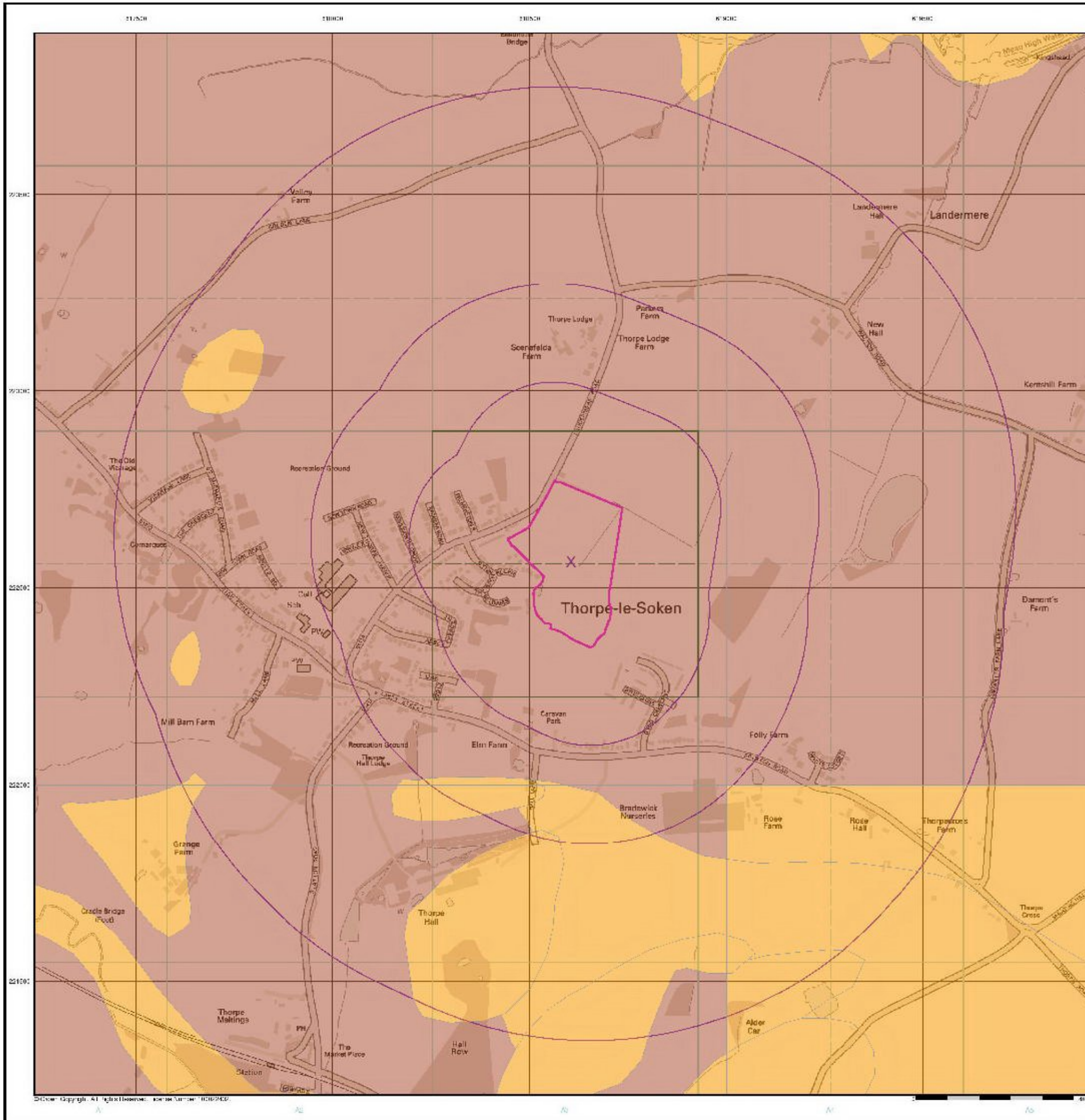


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Site Details

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General

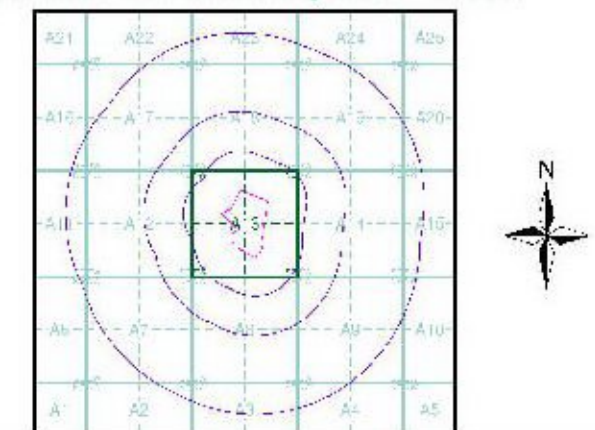
 Specific Site
  Specific Buffer
  Specific Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A

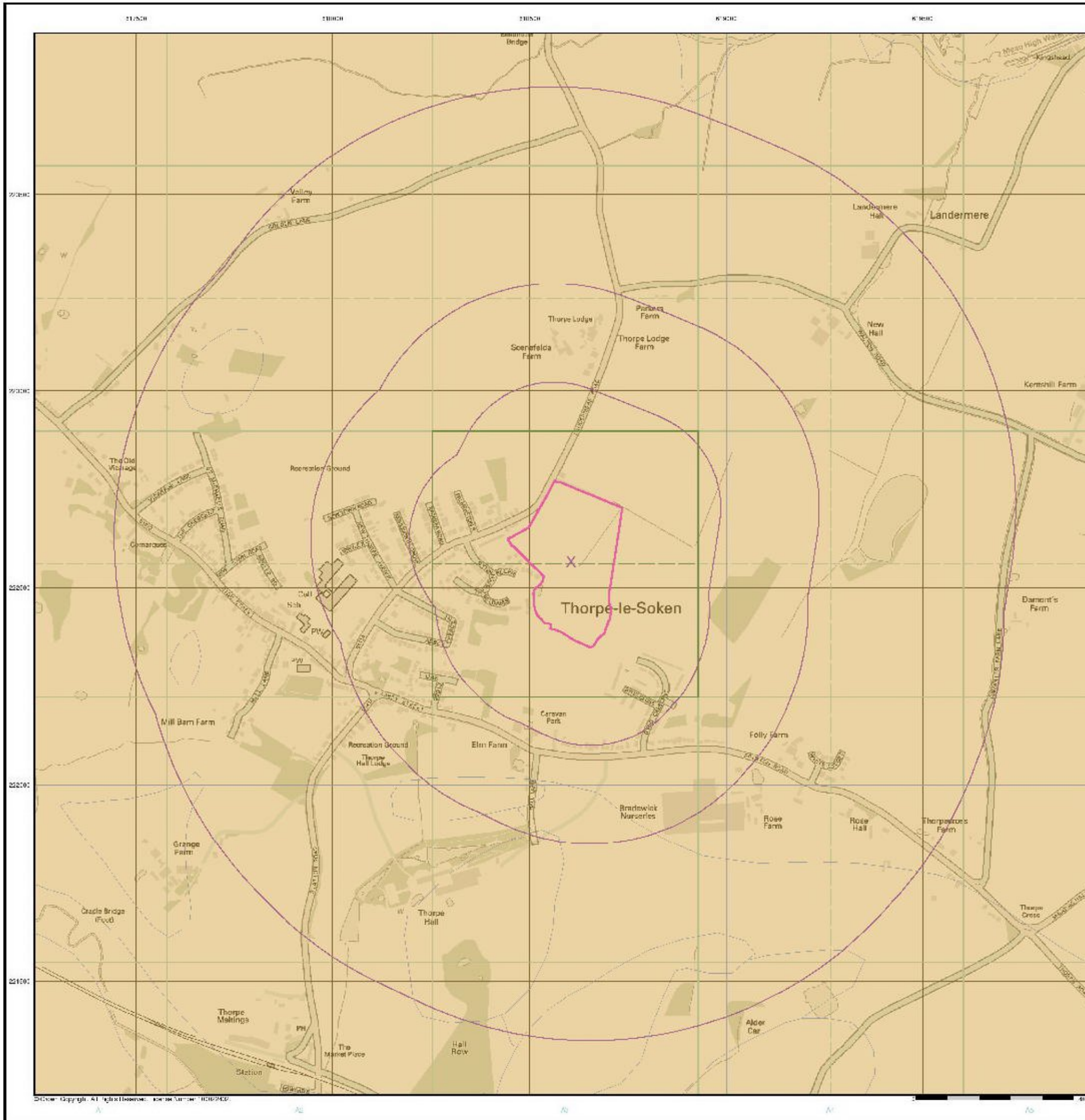


Order Details




Order Details: 81851777 1 1
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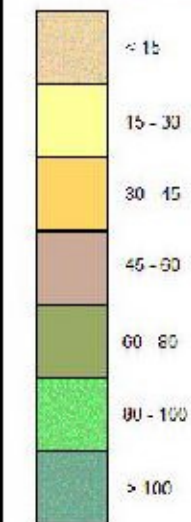


General

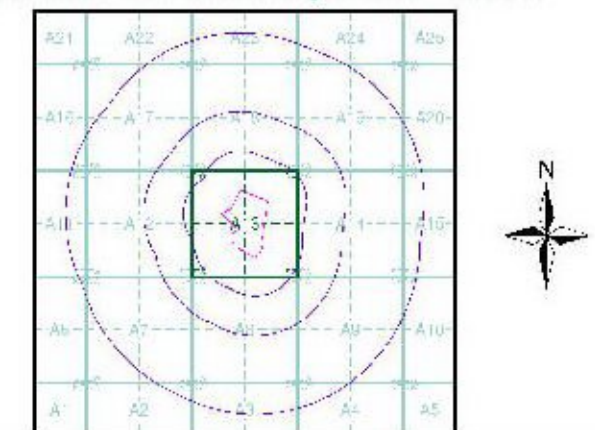
 Site Outline
  Search Buffer (m)
  Real Time Data File

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A

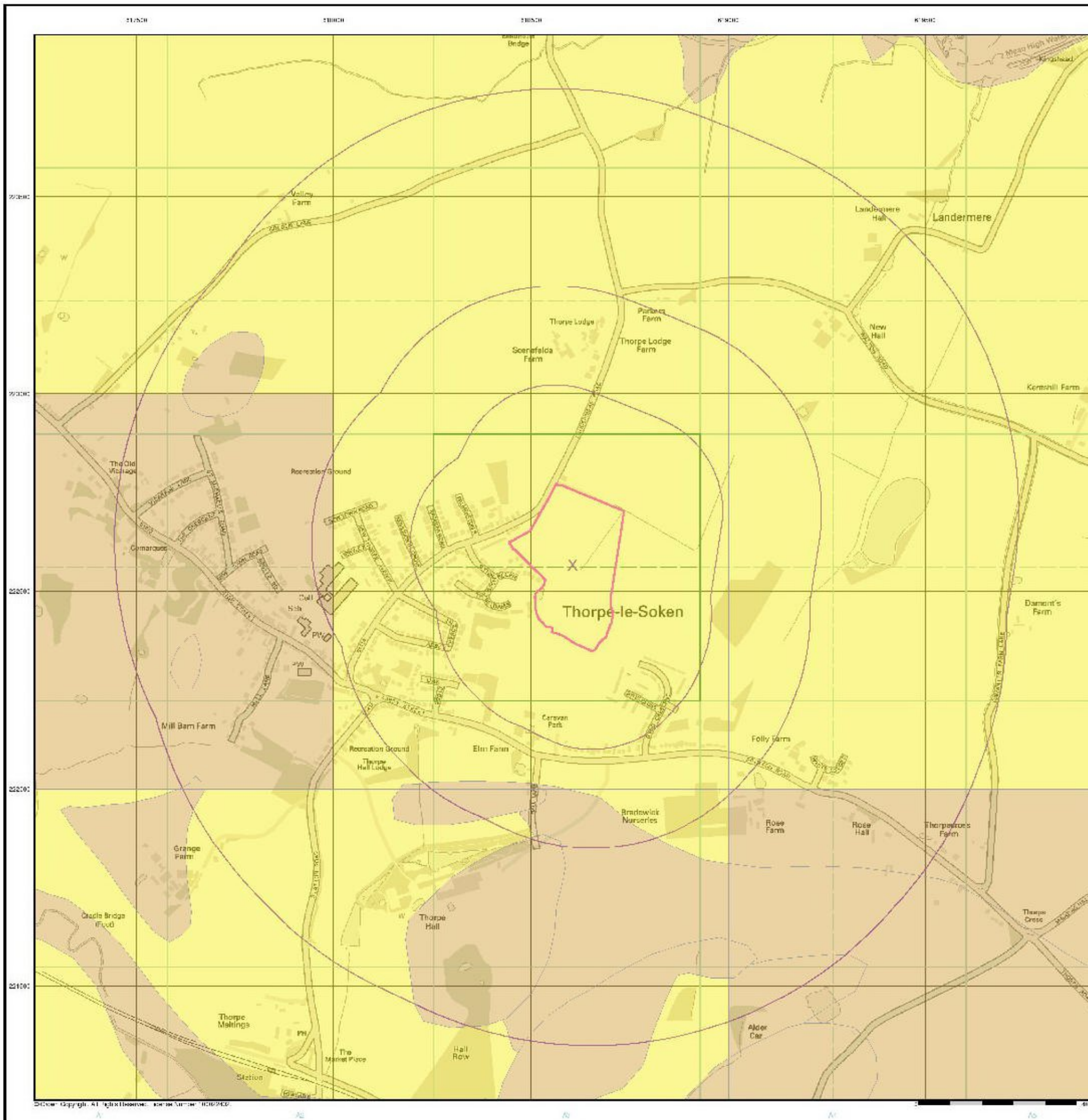


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Site Details

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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mrs A Davies, Geosphere Environmental Ltd, Brightwell Barns, Ipswich Road, Brightwell, Suffolk, IP10 0BJ

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<http://www.landmarkinfo.co.uk/Terms/Show515>



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